



SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Patti C 31-33	Well	Patti C 31-33
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API # : 071 08950 00 594' FNL & 2079' FEL	Other Services SIL	
Permanent Datum Log Measured From Drilling Measured From	Ground Level Kelly Bushing 4' Above G.L. Kelly Bushing	Elevation K.B. 7586' D.F. ----- G.L. 7582'	
SEC 33	TWP 32S	RGE 67W	
Date	4-19-07	4-21-07	
Run Number	One	Thirty Five	
Depth Driller	2565'	2565'	
Depth Logger	956'	2560'	
Bottom Logged Interval	940'	2558'	
Top Log Interval	Surface Casing	2402'	
Casing Driller	8,625" @ 605'	2398'	
Casing Logger	608'	2402'	
Bit Size	7.875"	7.875"	
Type Fluid in Hole	Water	Water	
Density / Viscosity	///	///	
pH / Fluid Loss	///	///	
Source of Sample	///	///	
Rm @ Meas. Temp	///	///	
Rmf @ Meas. Temp	///	///	
Rmc @ Meas. Temp	///	///	
Source of Rmf / Rmc	///	///	
Rm @ BHT	///	///	
Time Circulation Stopped	///	///	
Time Logger on Bottom	3:45 P.M.	4:00 P.M.	
Maximum Recorded Temperature	///	///	
Equipment Number	T701	T701	
Location	Trinidad	Trinidad	
Recorded By	Jennifer Allen	Jennifer Allen	
Witnessed By	Mr. Ray Decker	Mr. Clayton Brooker	

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

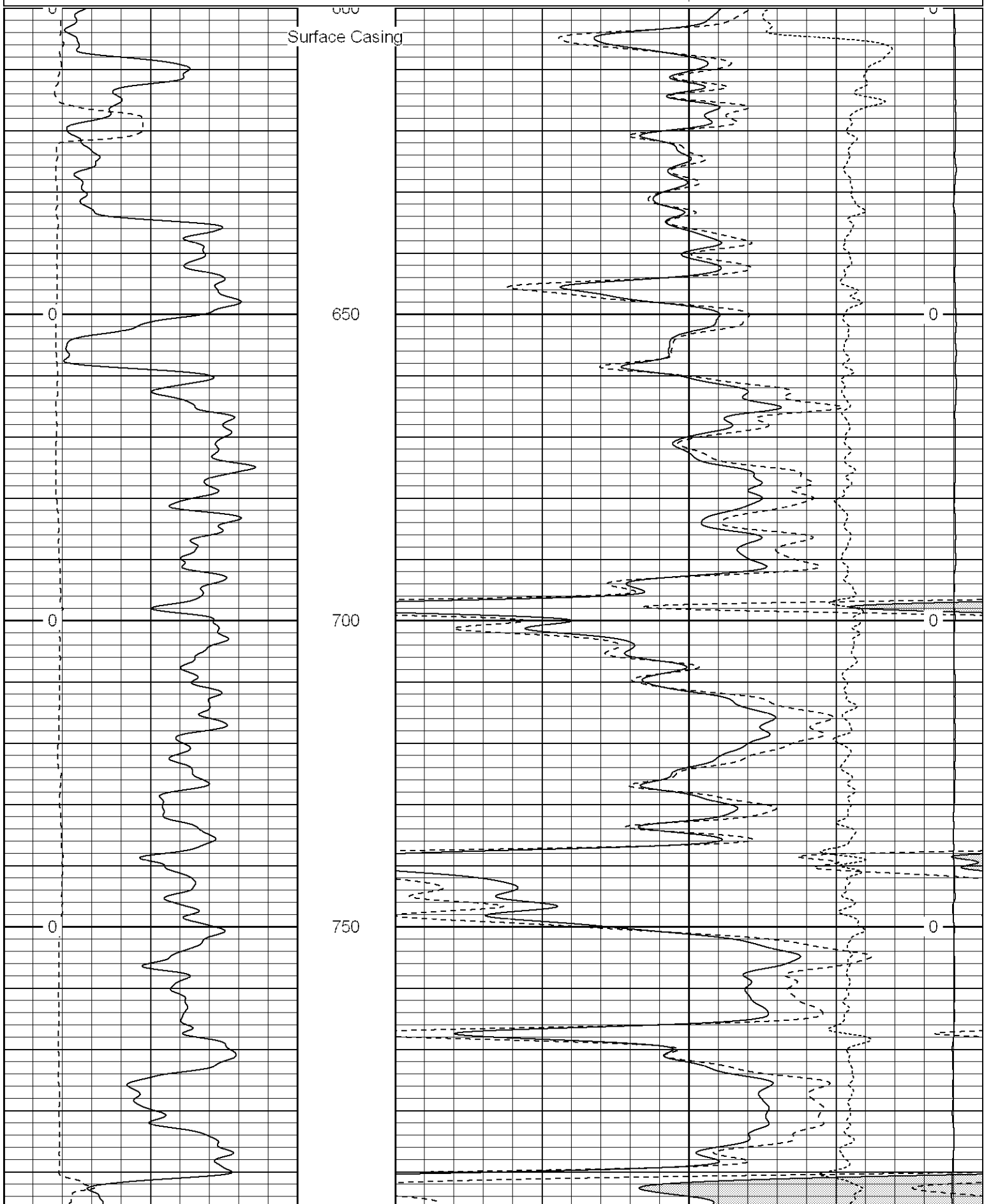
Comments

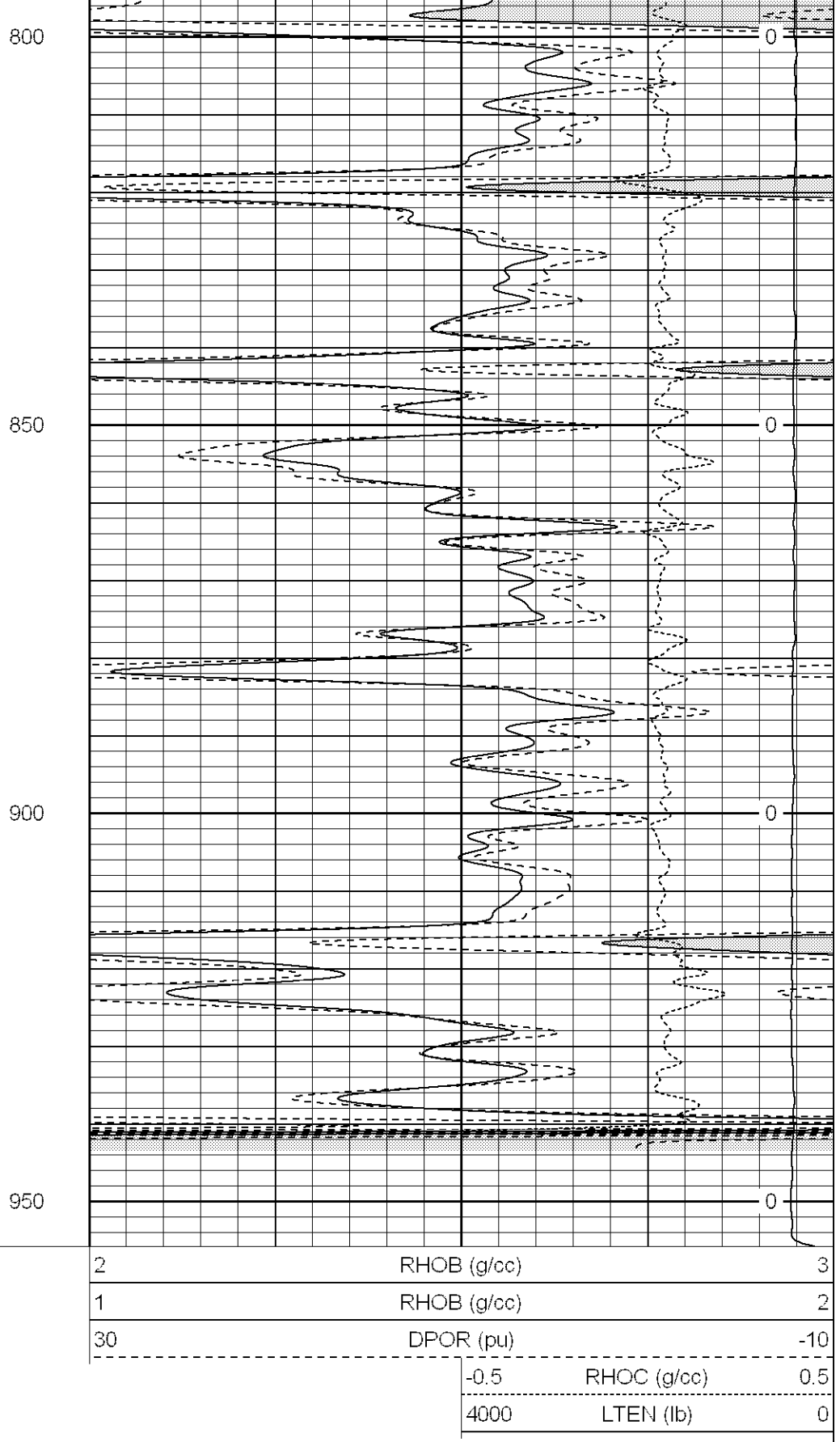
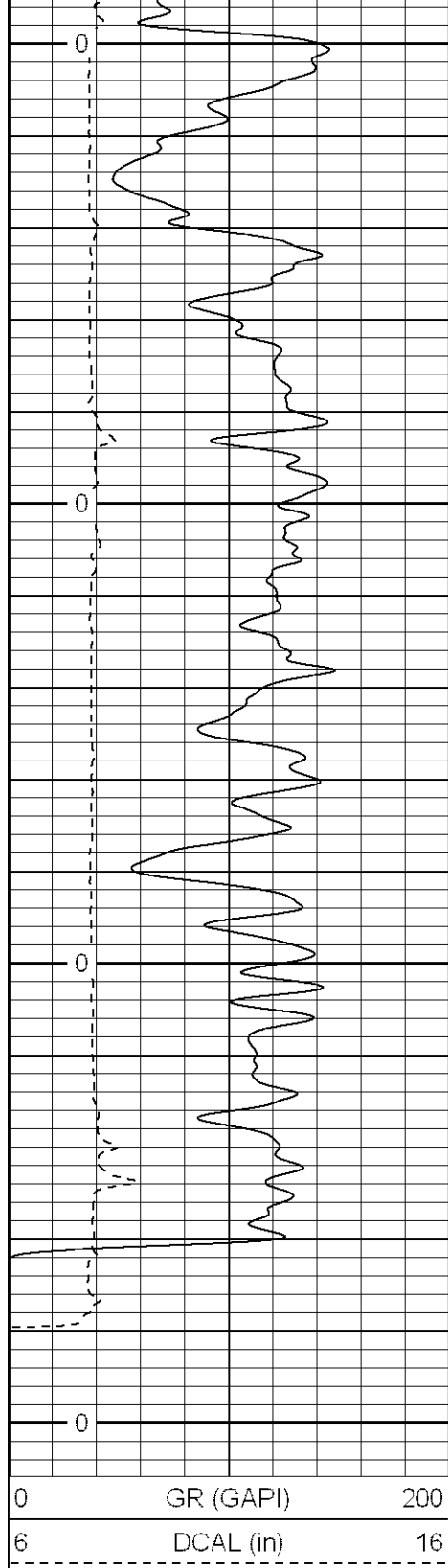
Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.
Well Directions:
Wet Canyon, stay on main road, turn left at two story cabin,
first right to location

Database File: pattic.db
Dataset Pathname: pass1.2
Presentation Format: cdl
Dataset Creation: Thu Apr 19 02:09:48 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

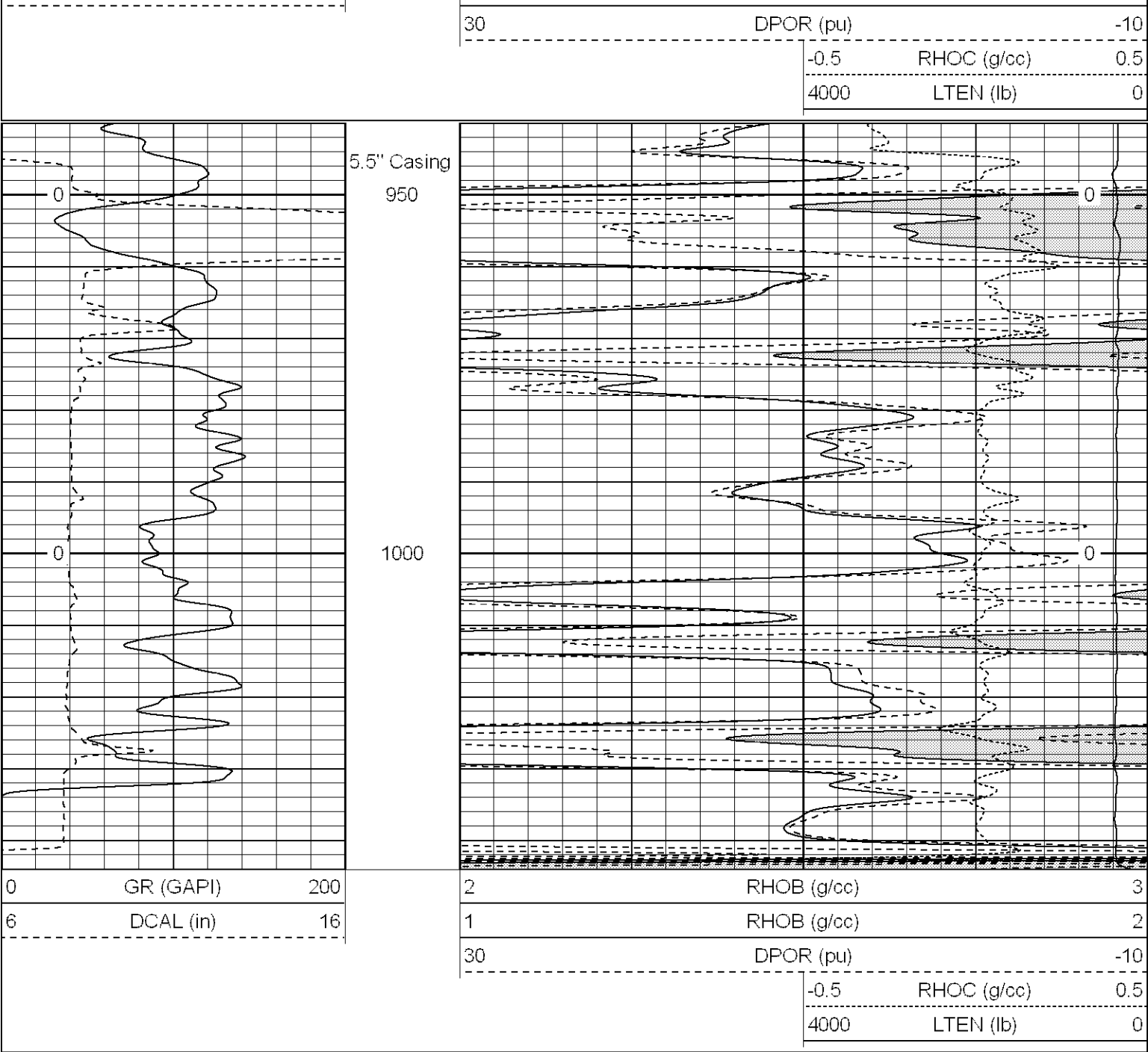




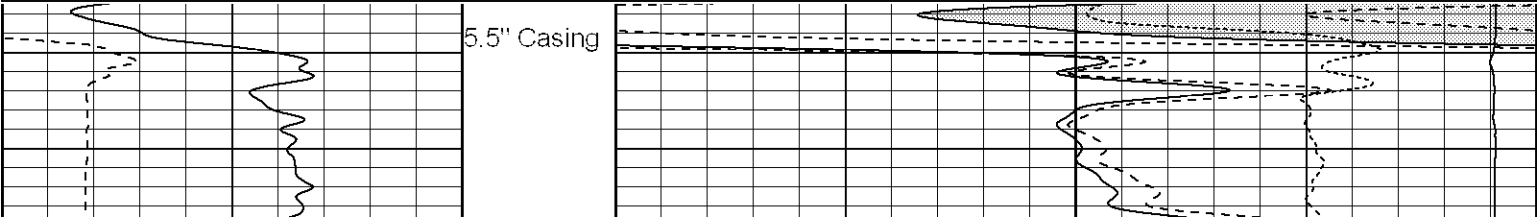
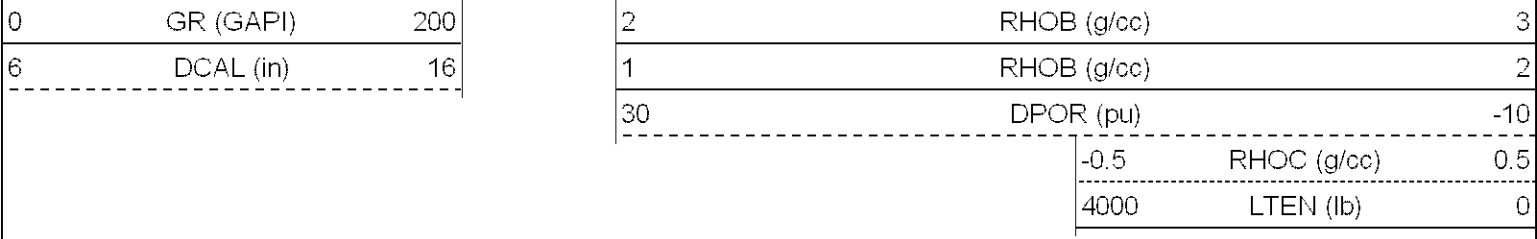
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 Dataset Pathname: pass3
 Presentation Format: cdl
 Dataset Creation: Fri Apr 20 04:56:51 2007 by Calc Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240

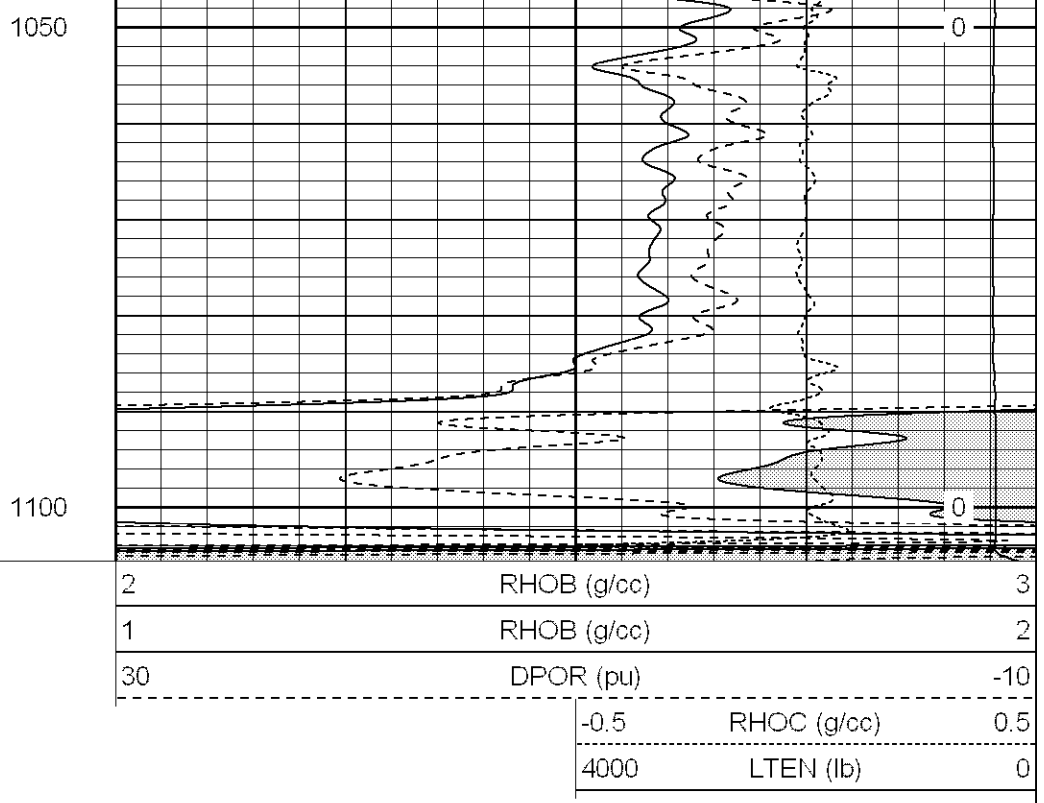
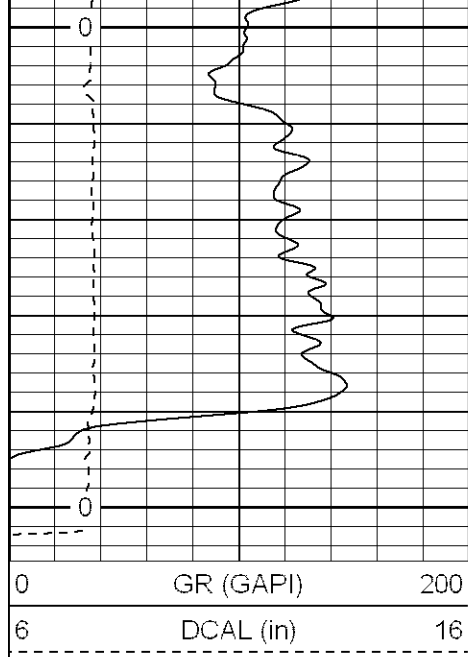
0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2

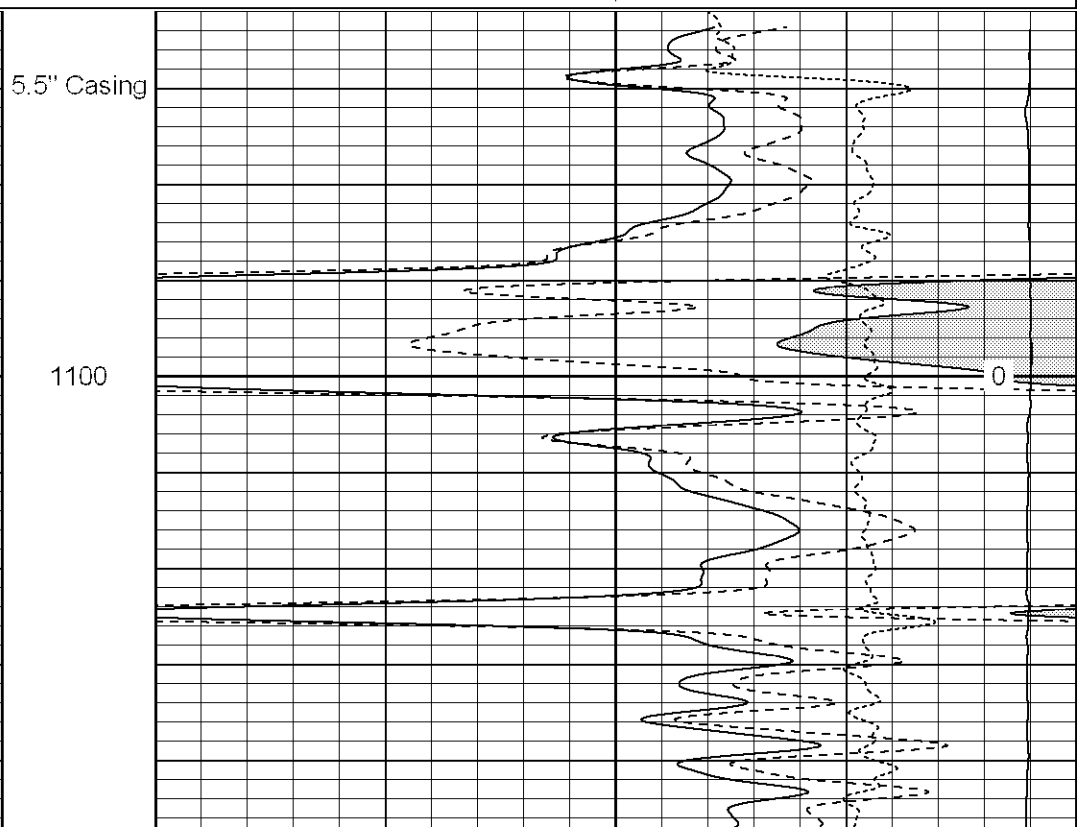
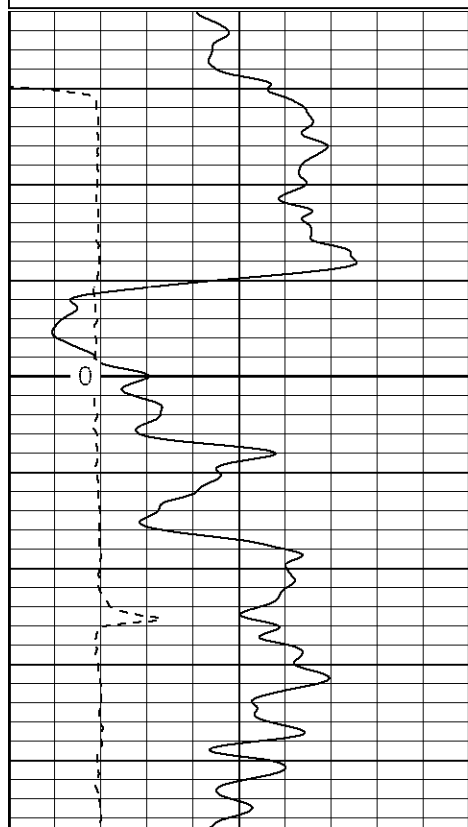
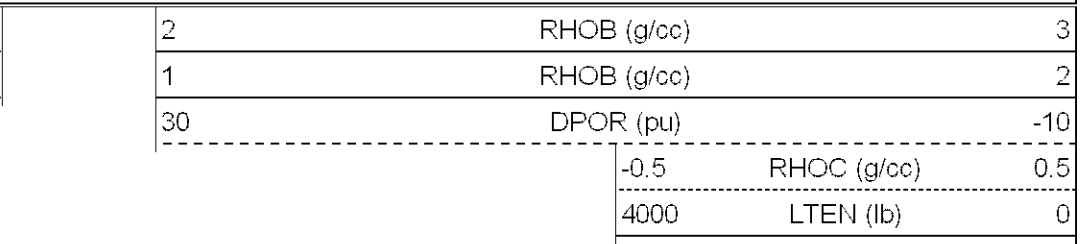
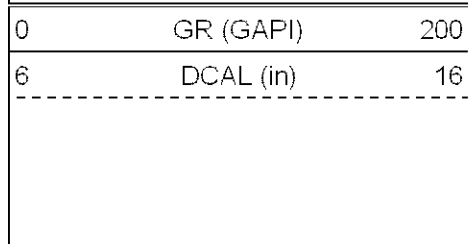


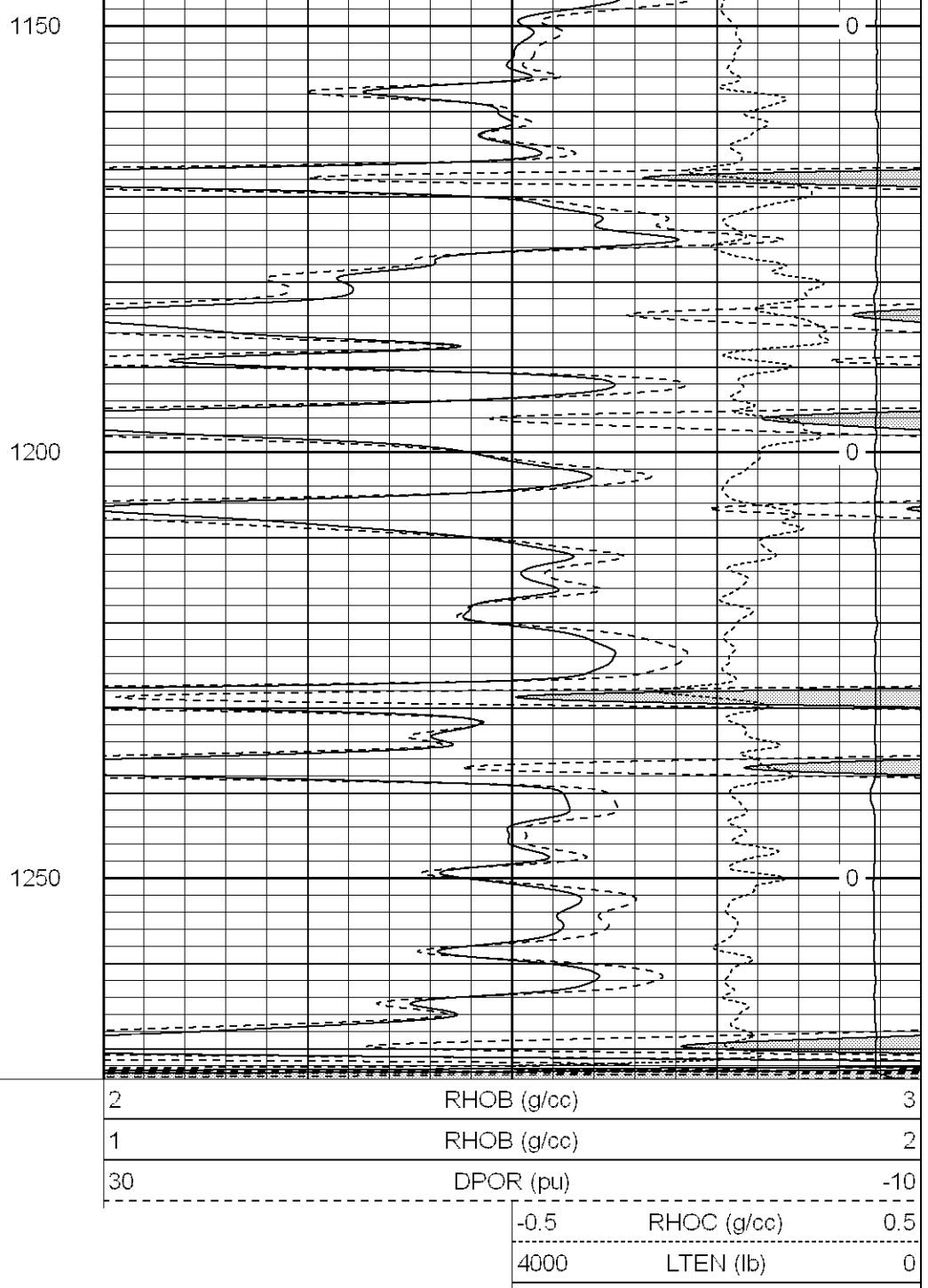
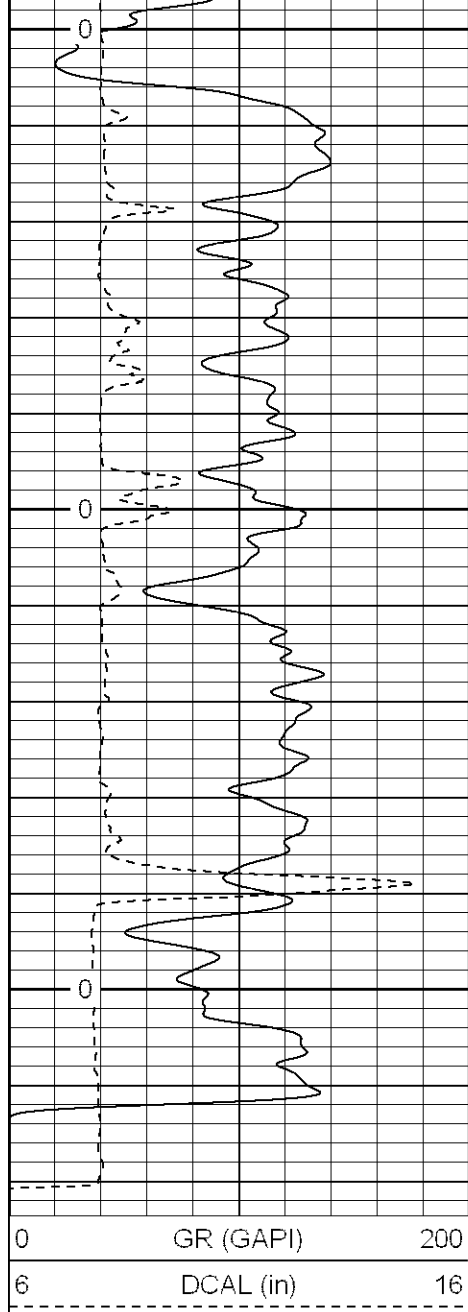
Database File: pattic.db
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Presentation Format: cdl
Dataset Creation: Fri Apr 20 07:14:00 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240



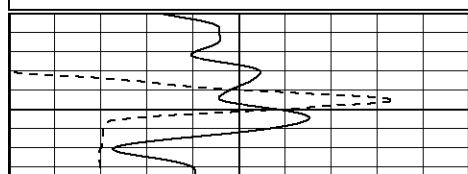
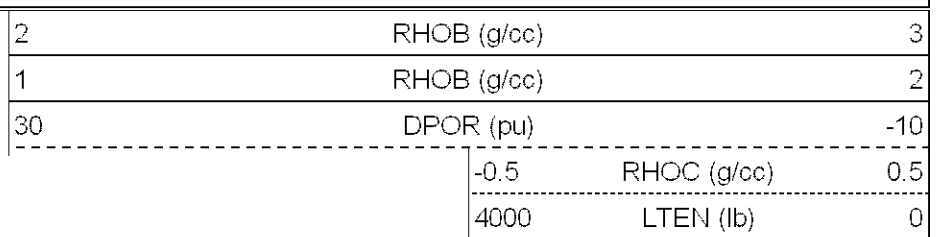
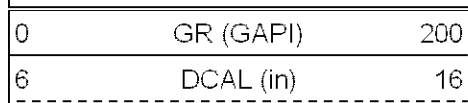


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 Presentation Format: cdl
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 Charted by: Depth in Feet scaled 1:240

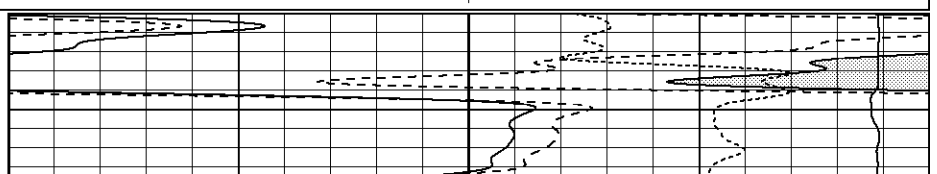


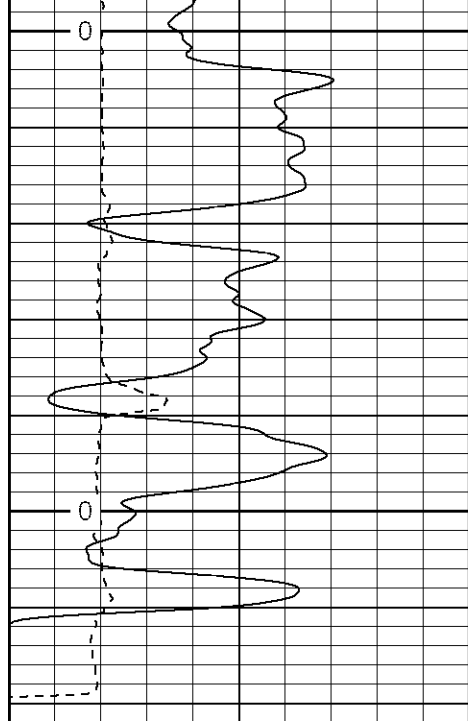


Database File: pattic.db
 Dataset Pathname: pass9
 Presentation Format: cdl
 Dataset Creation: Fri Apr 20 13:55:58 2007 by Calc Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240



5.5" Casing

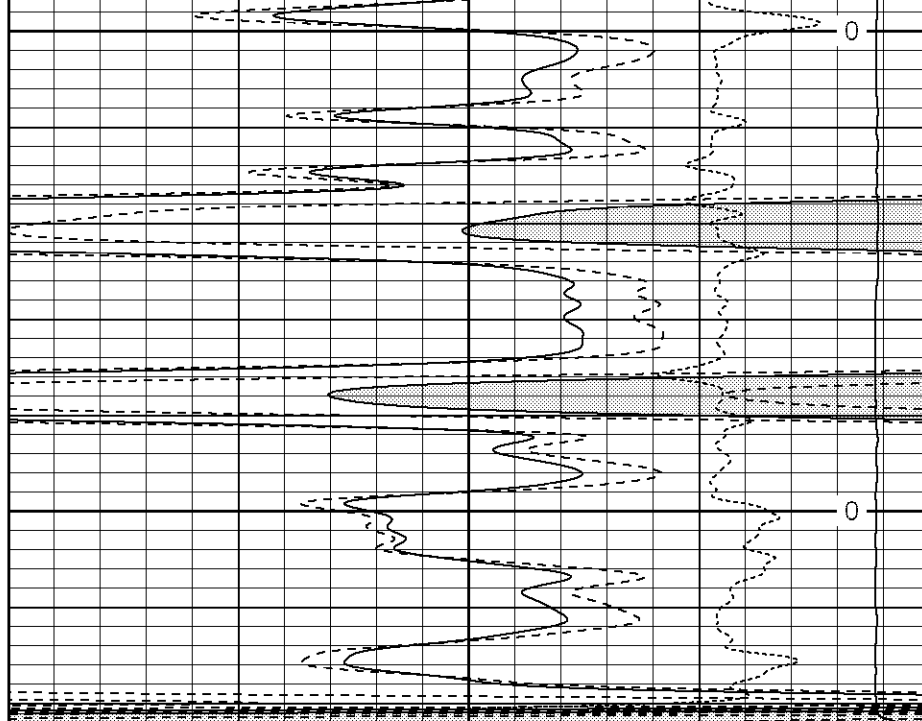




0	GR (GAPI)	200
6	DCAL (in)	16

1250

1300

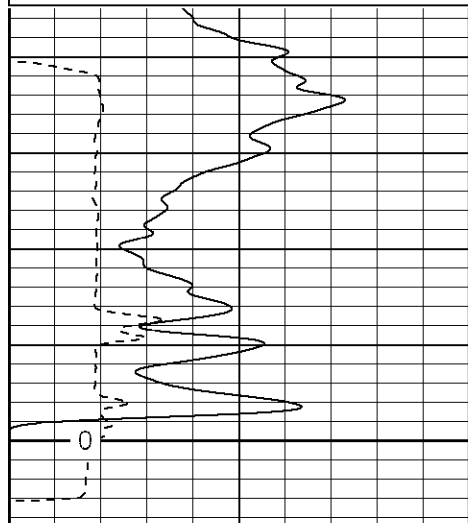


2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

Database File: pattic.db
 Dataset Pathname: pass11.1
 Presentation Format: cdl
 Dataset Creation: Fri Apr 20 14:20:10 2007 by Calc Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16

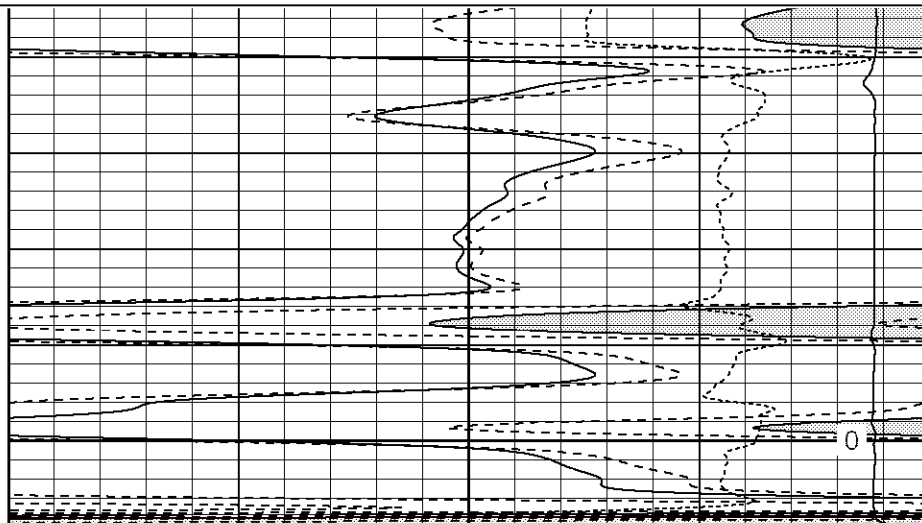
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0



0	GR (GAPI)	200
6	DCAL (in)	16

5.5" Casing

1400

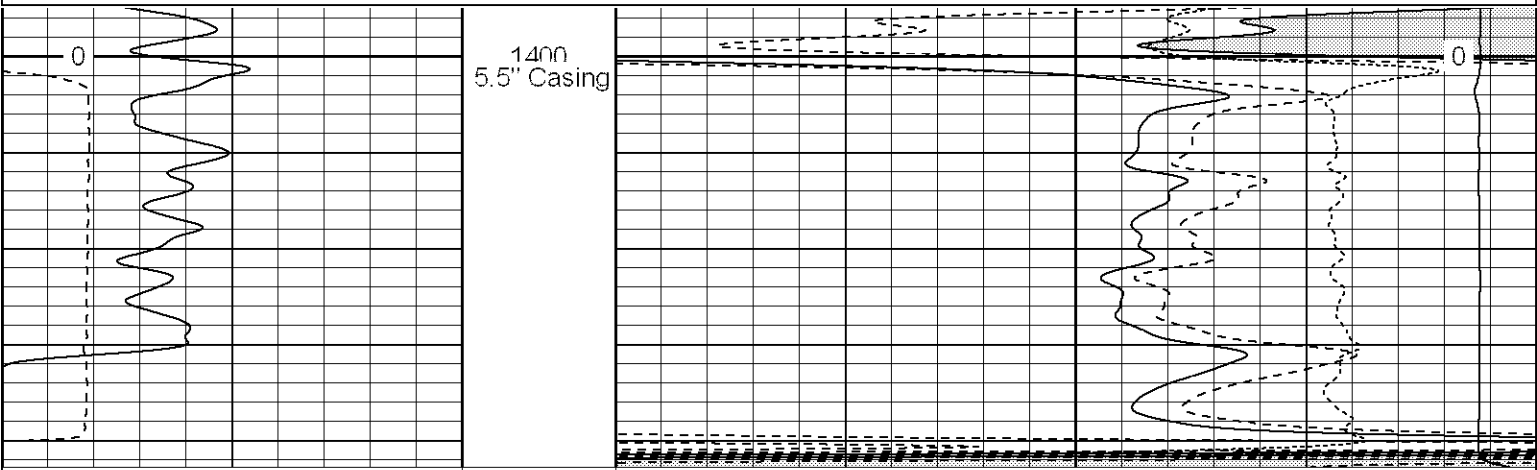


2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10

			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0

Database File:	pattic.db
Dataset Pathname:	pass13
Presentation Format:	cdl
Dataset Creation:	Fri Apr 20 15:54:08 2007 by Log Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

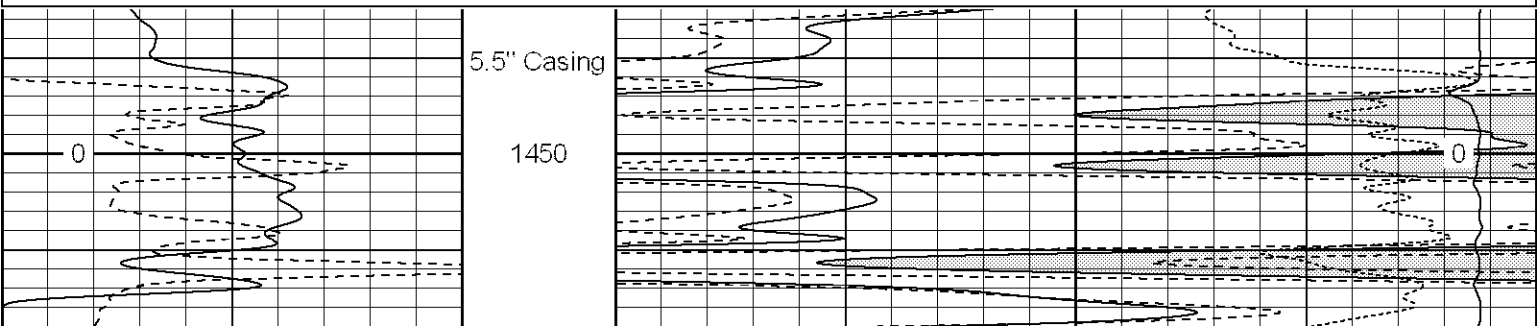
0	GR (GAPI)	200		2	RHOB (g/cc)	3	
6	DCAL (in)	16		1	RHOB (g/cc)	2	
-----				30	DPOR (pu)	-10	
					-0.5	RHOC (g/cc)	0.5
					4000	LTEN (lb)	0



0	GR (GAPI)	200	2	RHOB (g/cc)	3	
6	DCAL (in)	16	1	RHOB (g/cc)	2	
			30	DPOR (pu)	-10	
				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0

Database File:	pattic.db
Dataset Pathname:	pass15
Presentation Format:	cdl
Dataset Creation:	Fri Apr 20 17:54:01 2007 by Log Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

0	GR (GAPI)	200		2	RHOB (g/cc)		3
6	DCAL (in)	16		1	RHOB (g/cc)		2
-----				30	DPOR (pu)		-10
					-0.5	RHOC (g/cc)	0.5
					4000	LTEN (lb)	0



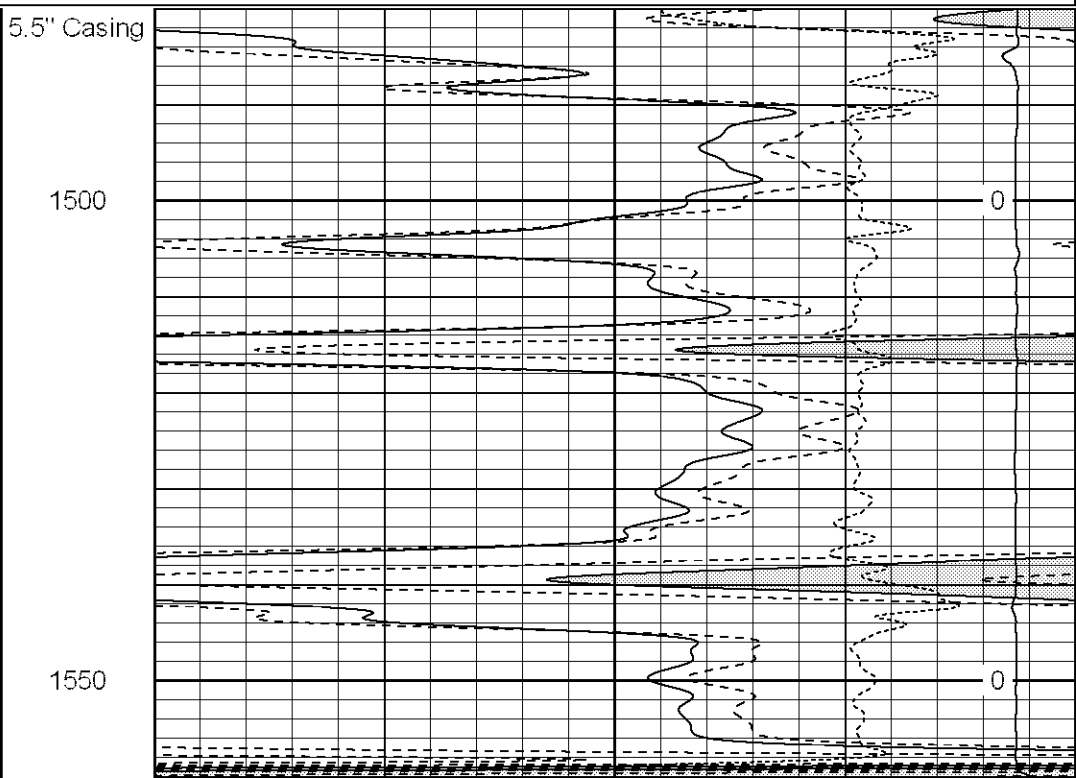
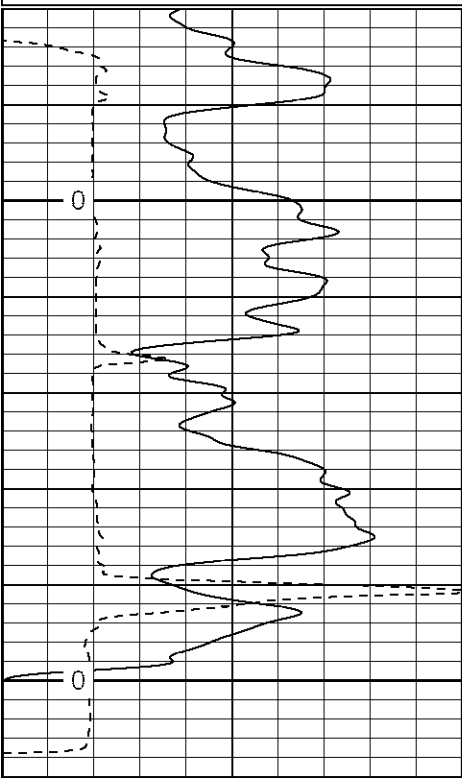
0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)	3	
1	RHOB (g/cc)	2	
30	DPOR (pu)	-10	
	-0.5	RHOC (g/cc)	0.5
	4000	LTEN (lb)	0

Database File:	pattic.db
Dataset Pathname:	pass17
Presentation Format:	cdl
Dataset Creation:	Fri Apr 20 19:42:52 2007 by Log Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)		3
1	RHOB (g/cc)		2
30	DPOR (pu)		-10
<hr/>			
	-0.5	RHOC (g/cc)	0.5
<hr/>			
	4000	LTEN (lb)	0
<hr/>			



0	GR (GAPI)	200
6	DCAL (in)	16

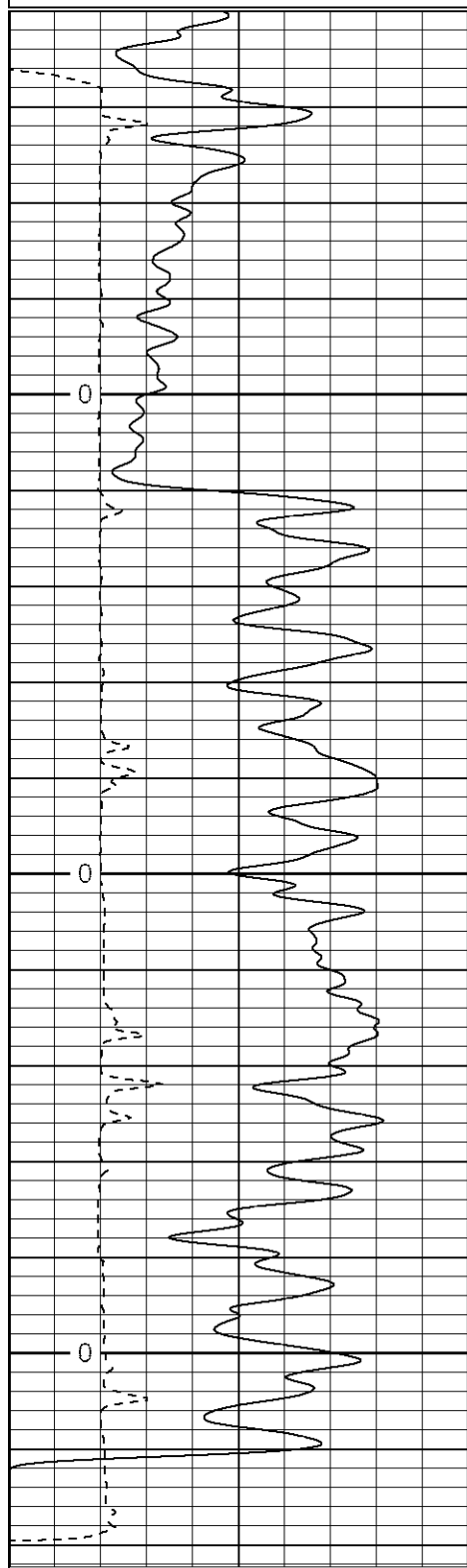
2	RHOB (g/cc)		3
1	RHOB (g/cc)		2
30	DPOR (pu)		-10
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	-0.5	RHOC (g/cc)	0.5
	<hr/>		
	4000	LTEN (lb)	0
	<hr/>		

Database File:	pattic.db
Dataset Pathname:	pass19
Presentation Format:	cdl
Dataset Creation:	Fri Apr 20 21:33:36 2007 by Log Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

0	GR (GAPI)	200	2	RHOB (g/cc)	3
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6	DCAL (in)	16
---	-----------	----

1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0



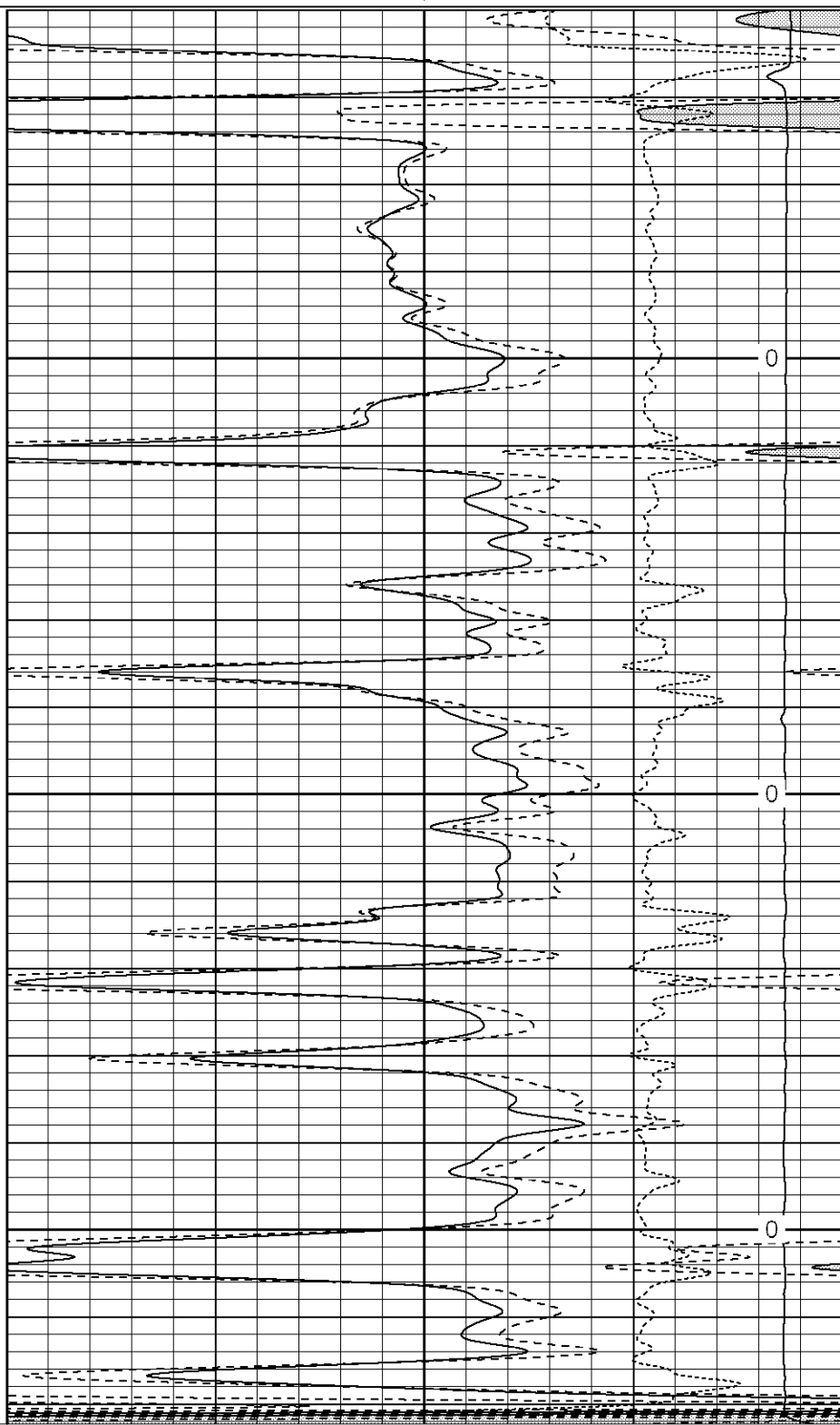
5.5" Casing

1600

1650

1700

0	GR (GAPI)	200
6	DCAL (in)	16



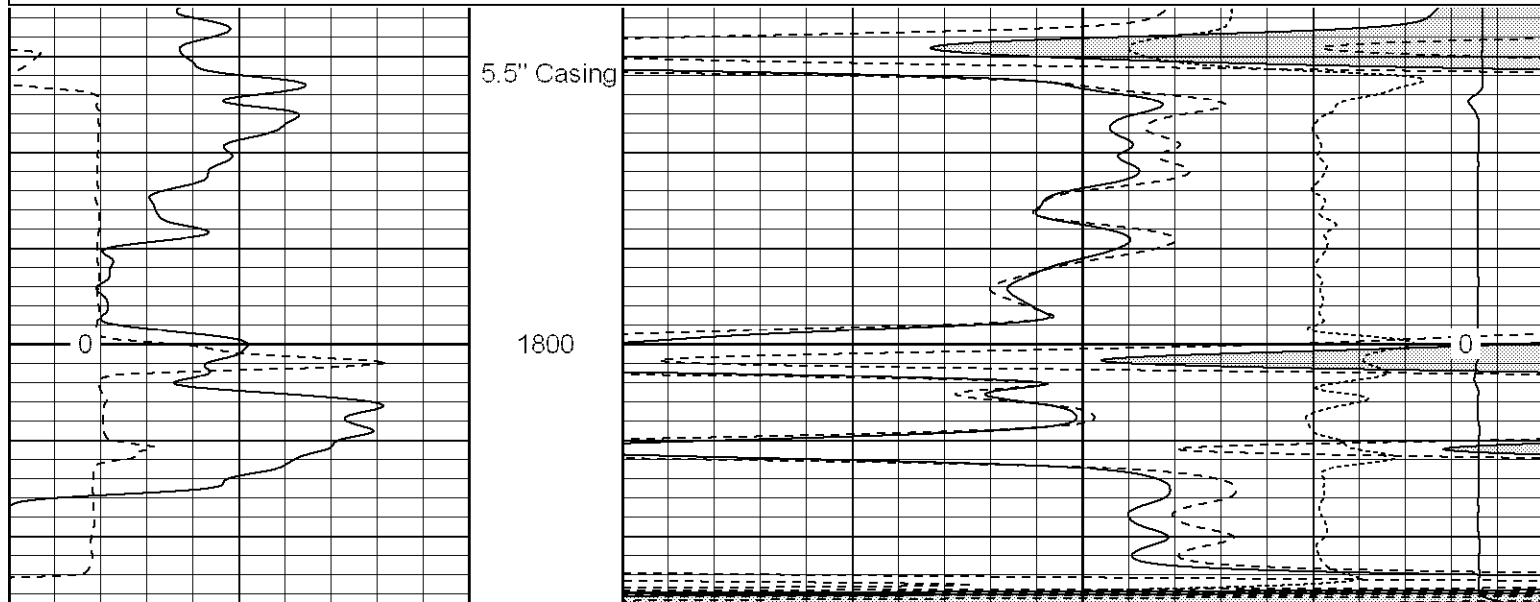
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

Dataset Pathname: pass21
 Presentation Format: cdl
 Dataset Creation: Sat Apr 21 01:39:30 2007 by Log Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	2	RHOB (g/cc)	3
6	DCAL (in)	16	1	RHOB (g/cc)	2
-----			30	DPOR (pu)	-10

			-0.5	RHOC (g/cc)	0.5

			4000	LTEN (lb)	0



0	GR (GAPI)	200	2	RHOB (g/cc)	3
6	DCAL (in)	16	1	RHOB (g/cc)	2
-----			30	DPOR (pu)	-10

			-0.5	RHOC (g/cc)	0.5

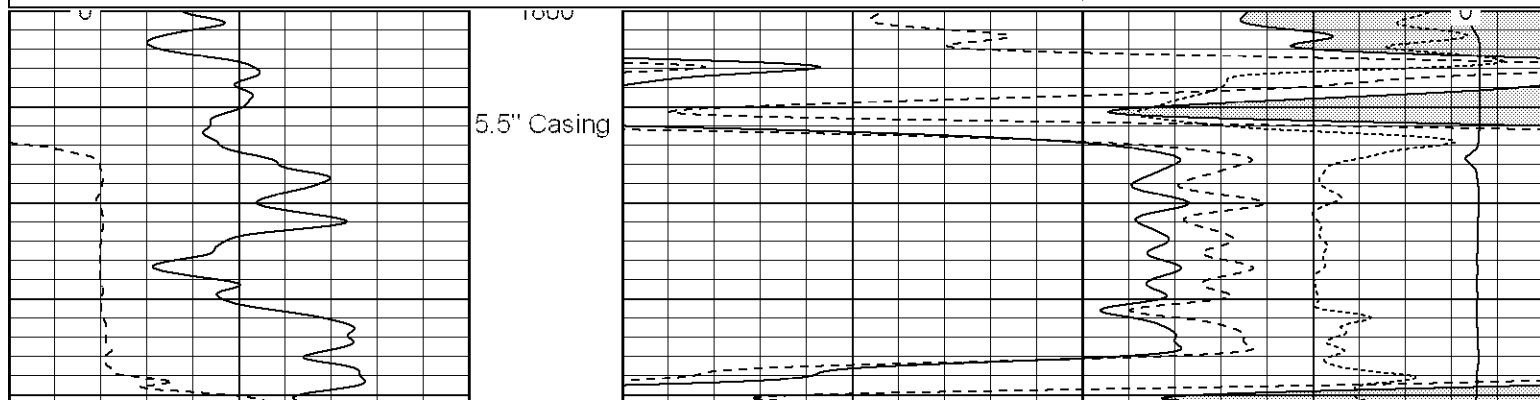
			4000	LTEN (lb)	0

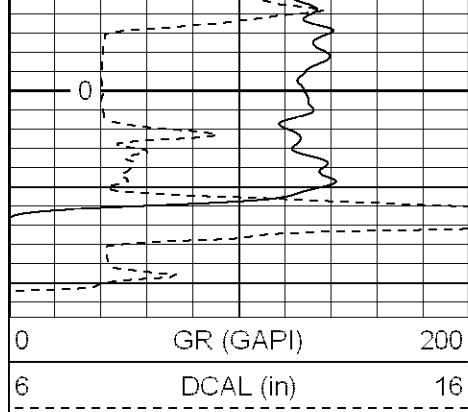
Database File: pattic.db
 Dataset Pathname: pass23
 Presentation Format: cdl
 Dataset Creation: Sat Apr 21 03:16:55 2007 by Log Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	2	RHOB (g/cc)	3
6	DCAL (in)	16	1	RHOB (g/cc)	2
-----			30	DPOR (pu)	-10

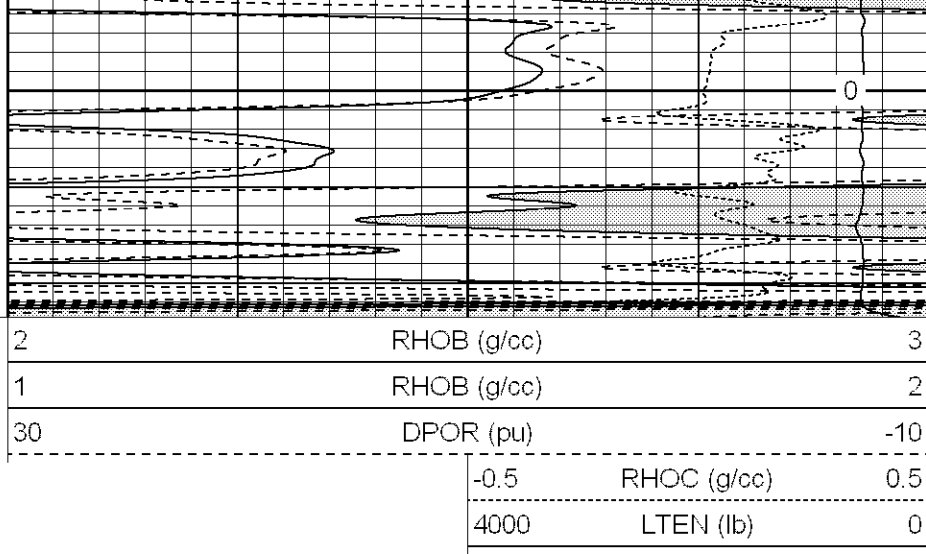
			-0.5	RHOC (g/cc)	0.5

			4000	LTEN (lb)	0

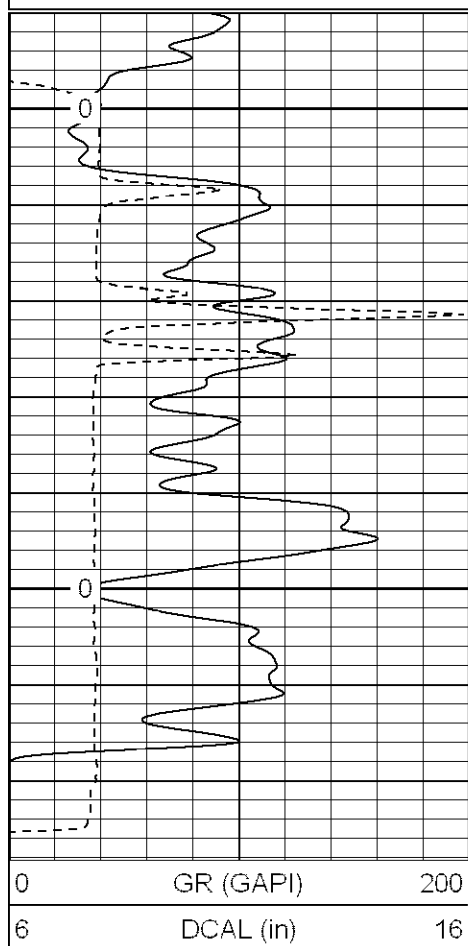
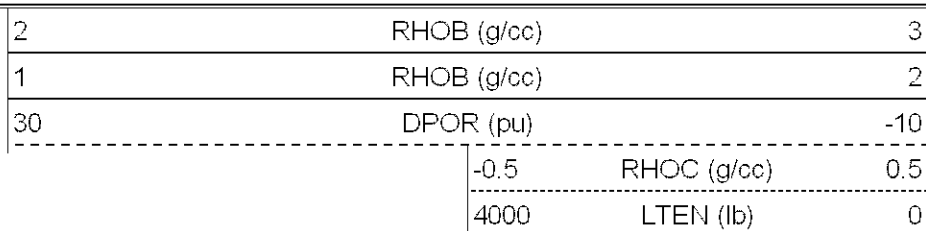
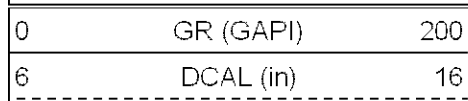




1850

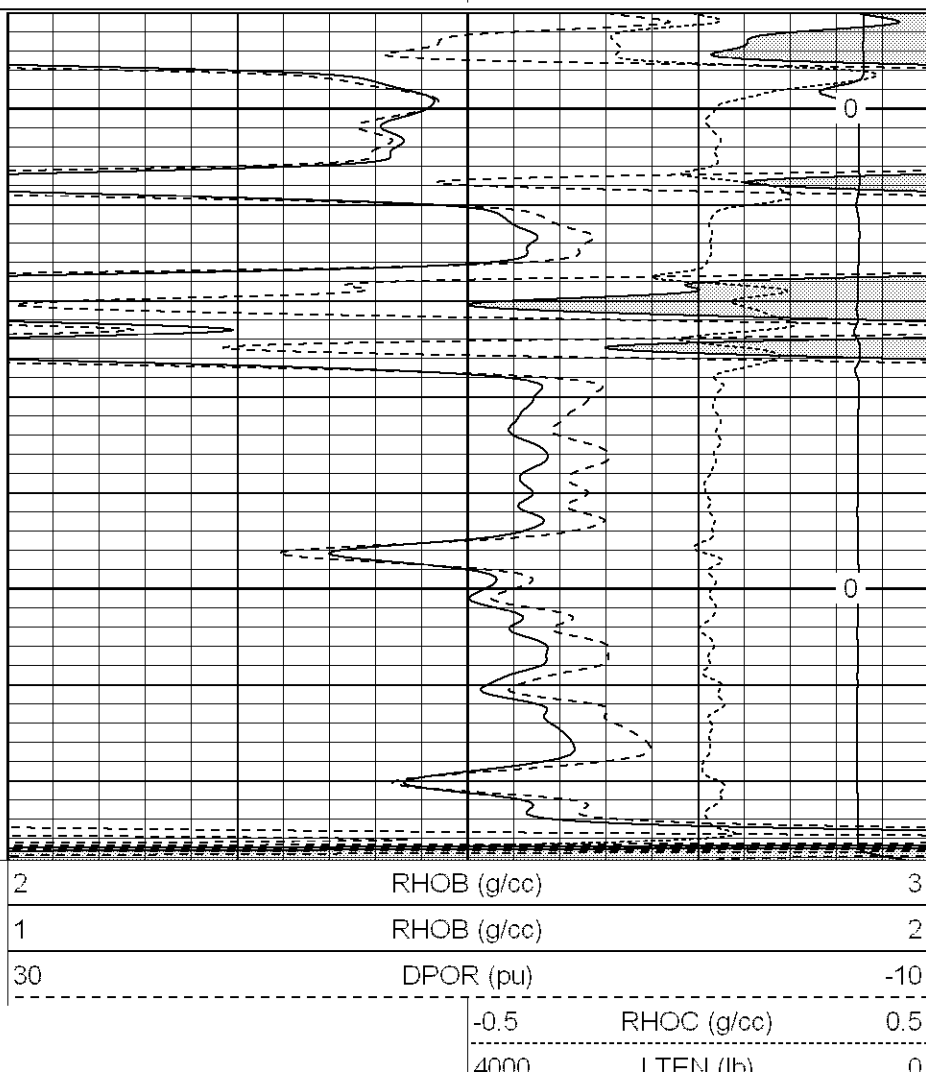


Database File: pattic.db
 Dataset Pathname: pass26
 Presentation Format: cdl
 Dataset Creation: Sat Apr 21 06:44:35 2007 by Log Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240



5.5" Casing
1900

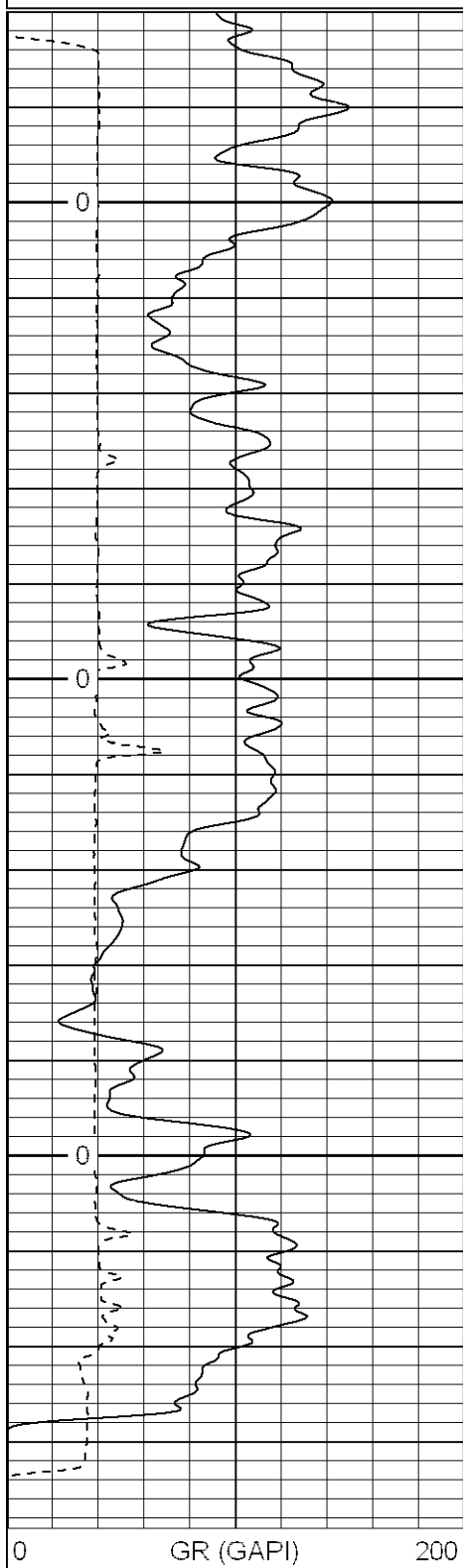
1950



Database File: pattic.db
 Dataset Pathname: pass29
 Presentation Format: cdl
 Dataset Creation: Sat Apr 21 08:44:49 2007 by Log Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

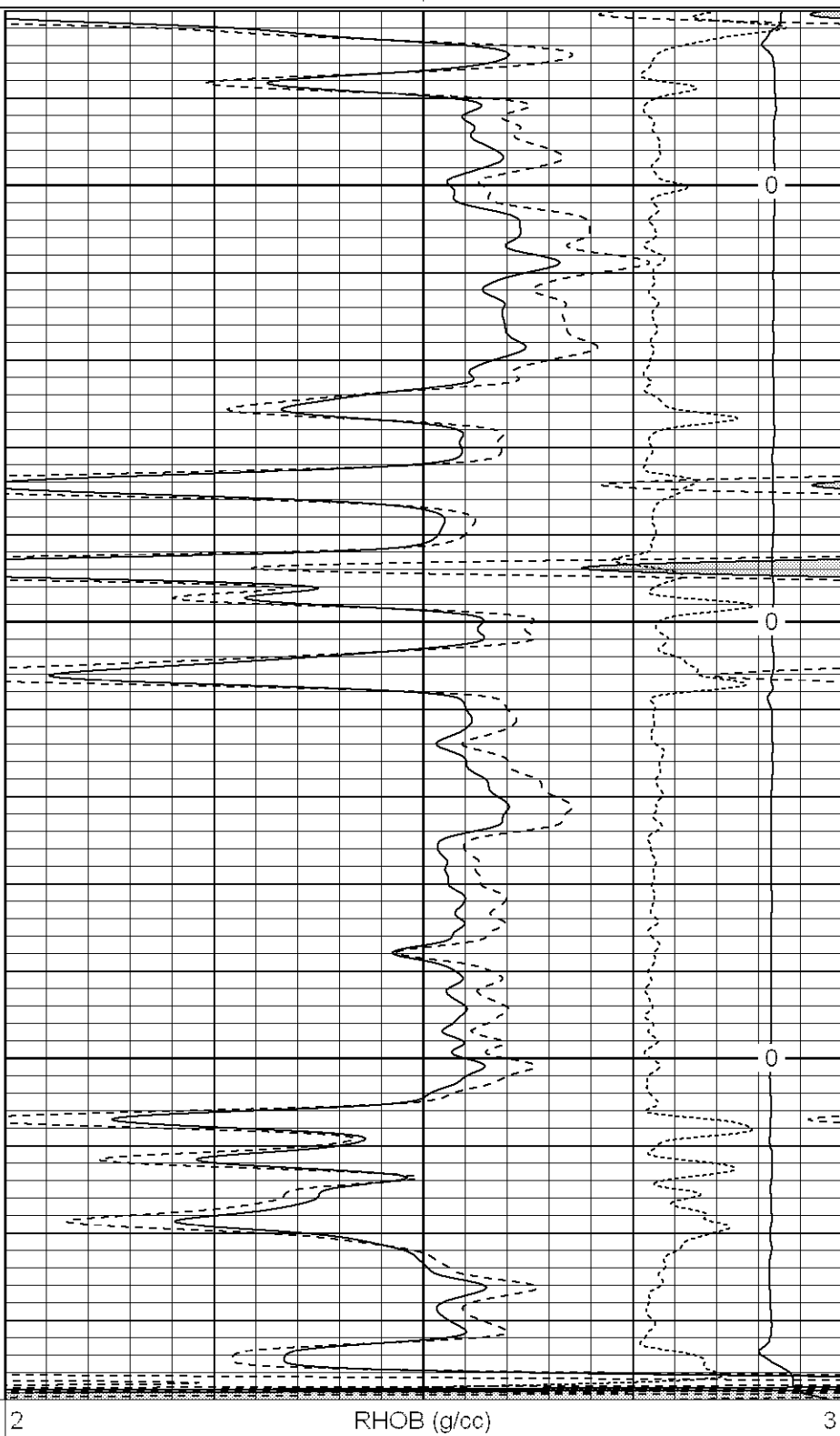


5.5" Casing

2000

2050

2100



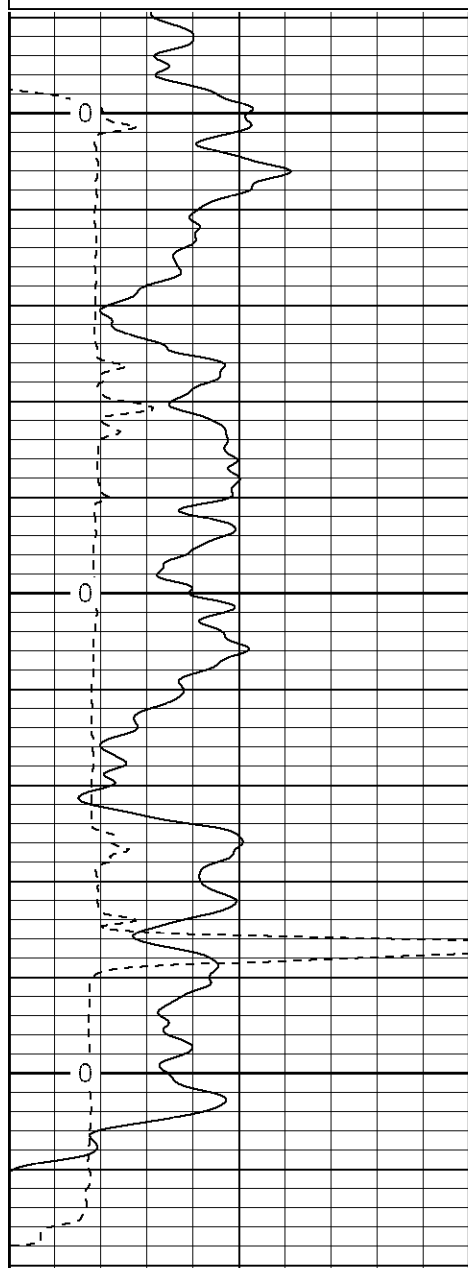
6	DCAL (in)	16
<hr/>		

1	RHOB (g/cc)	2
30	DPOR (pu)	-10
<hr/>		
-0.5	RHOC (g/cc)	0.5
<hr/>		
4000	LTEN (lb)	0

Database File: pattic.db
 Dataset Pathname: pass31
 Presentation Format: cdl
 Dataset Creation: Sat Apr 21 11:20:03 2007 by Log Open-Cased 061129
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
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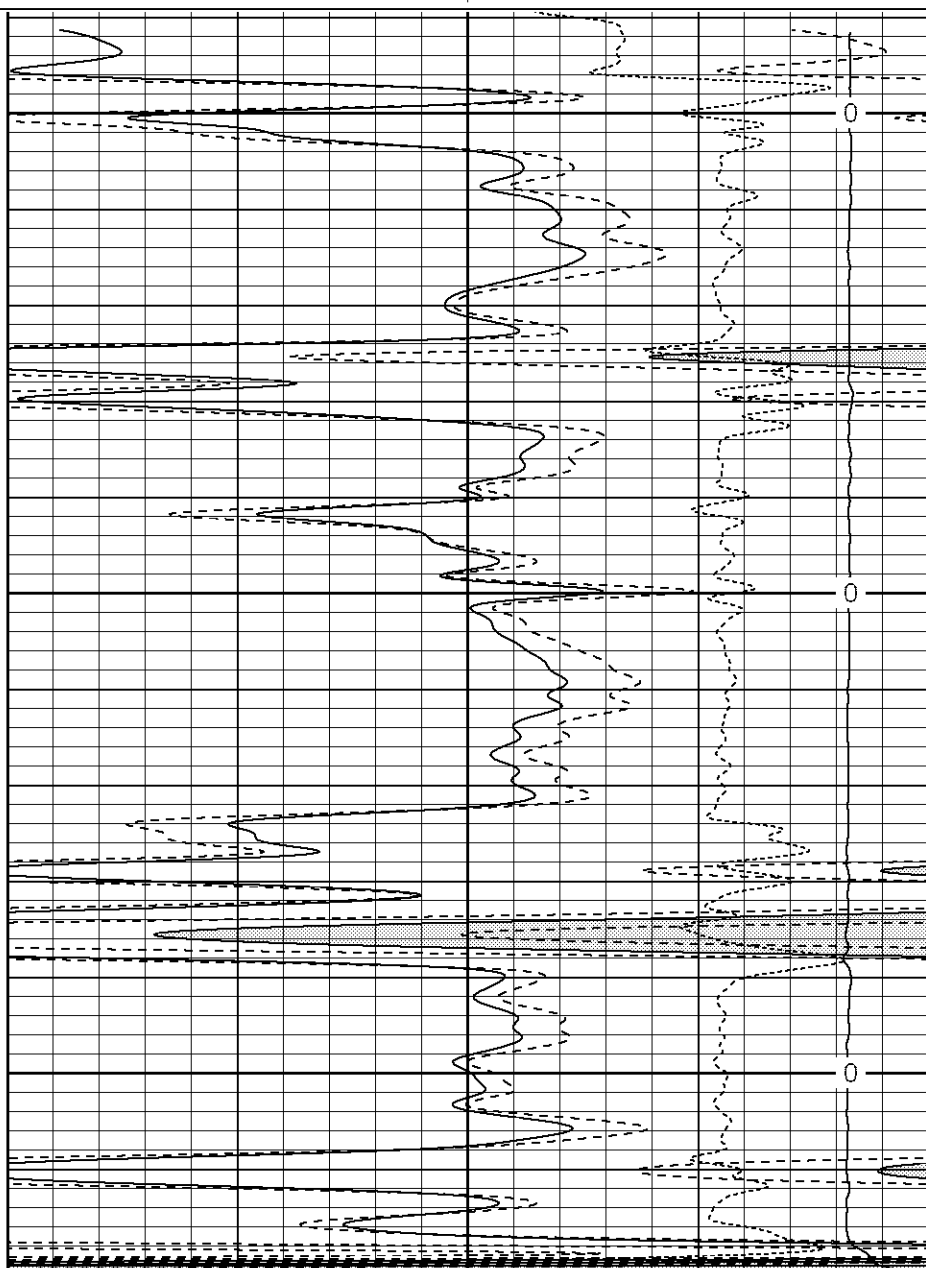
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
<hr/>		
-0.5	RHOC (g/cc)	0.5
<hr/>		
4000	LTEN (lb)	0



5.5" Casing
2150

2200

2250



0	GR (GAPI)	200
6	DCAL (in)	16
<hr/>		

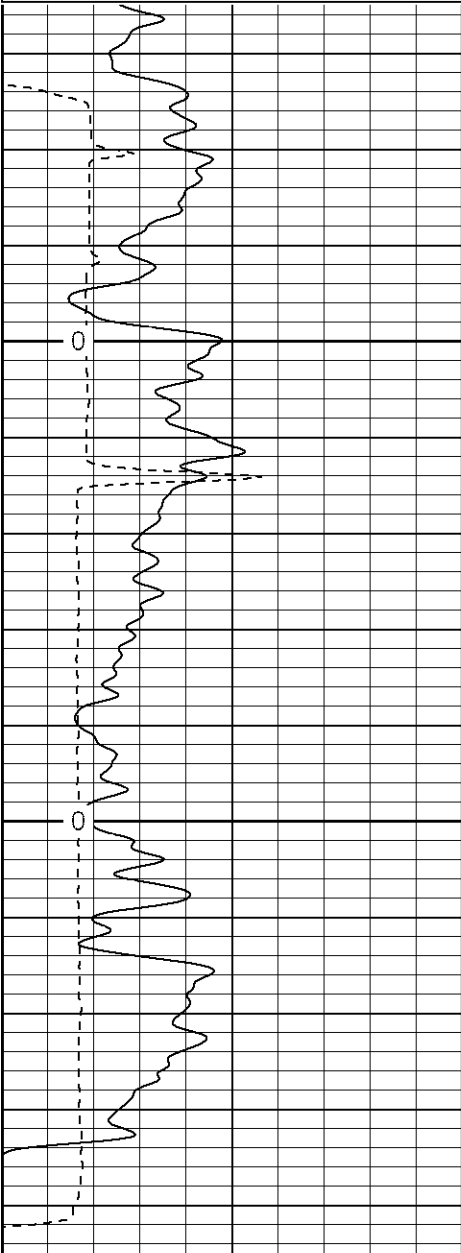
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
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-0.5	RHOC (g/cc)	0.5

Database File: pattic.db
Dataset Pathname: pass33.1
Presentation Format: cdl
Dataset Creation: Sat Apr 21 13:35:50 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10

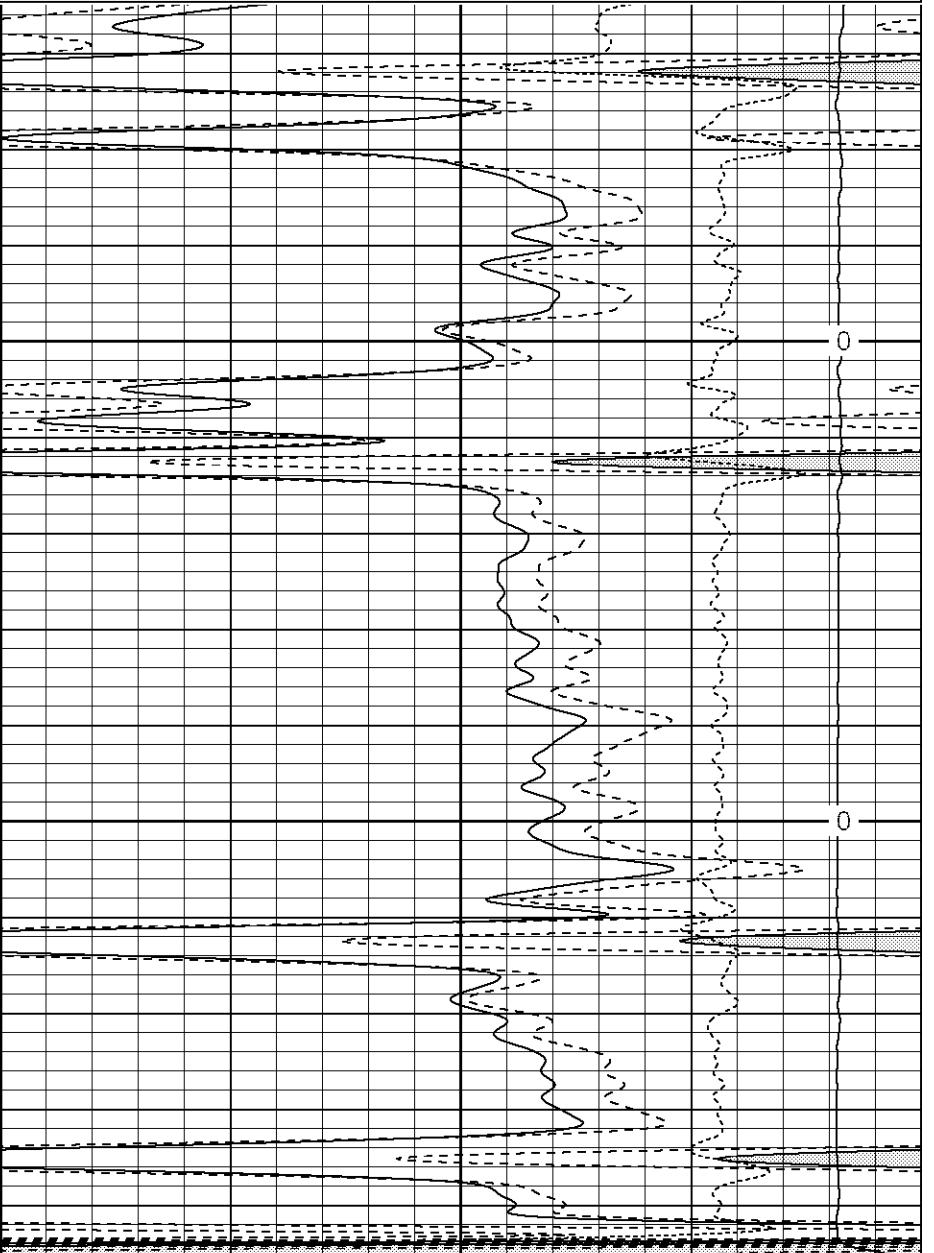
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0



5.5" Casing

2300

2350

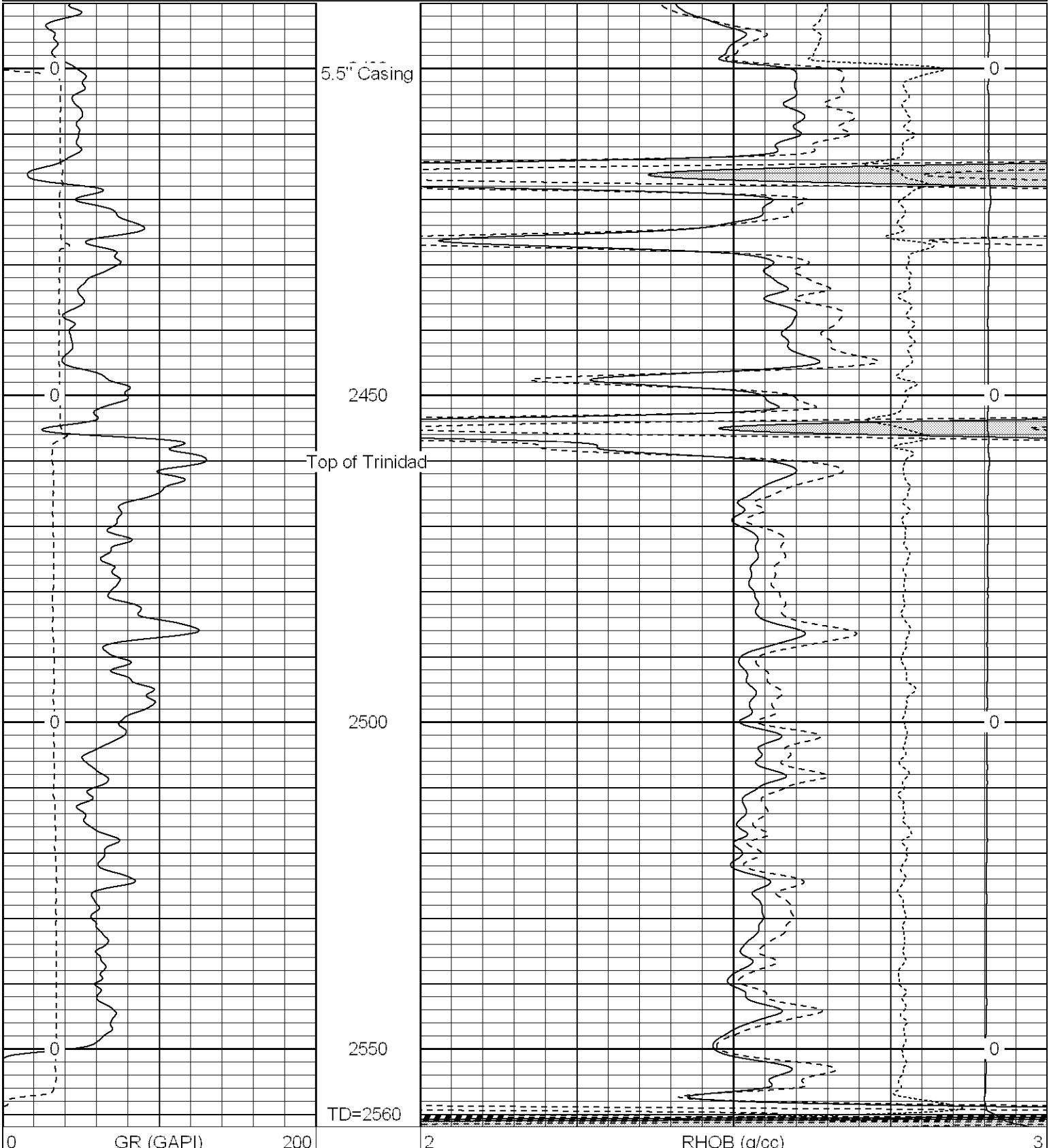


0	GR (GAPI)	200
6	DCAL (in)	16

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10

-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

0	GR (GAPI)	200	2	RHOB (g/cc)		3
6	DCAL (in)	16	1	RHOB (g/cc)		2
			30	DPOR (pu)		-10
				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0



6	DCAL (in)	16	1	RHOB (g/cc)	2
			30	DPOR (pu)	-10
				-0.5	RHOC (g/cc) 0.5
				4000	LTEN (lb) 0

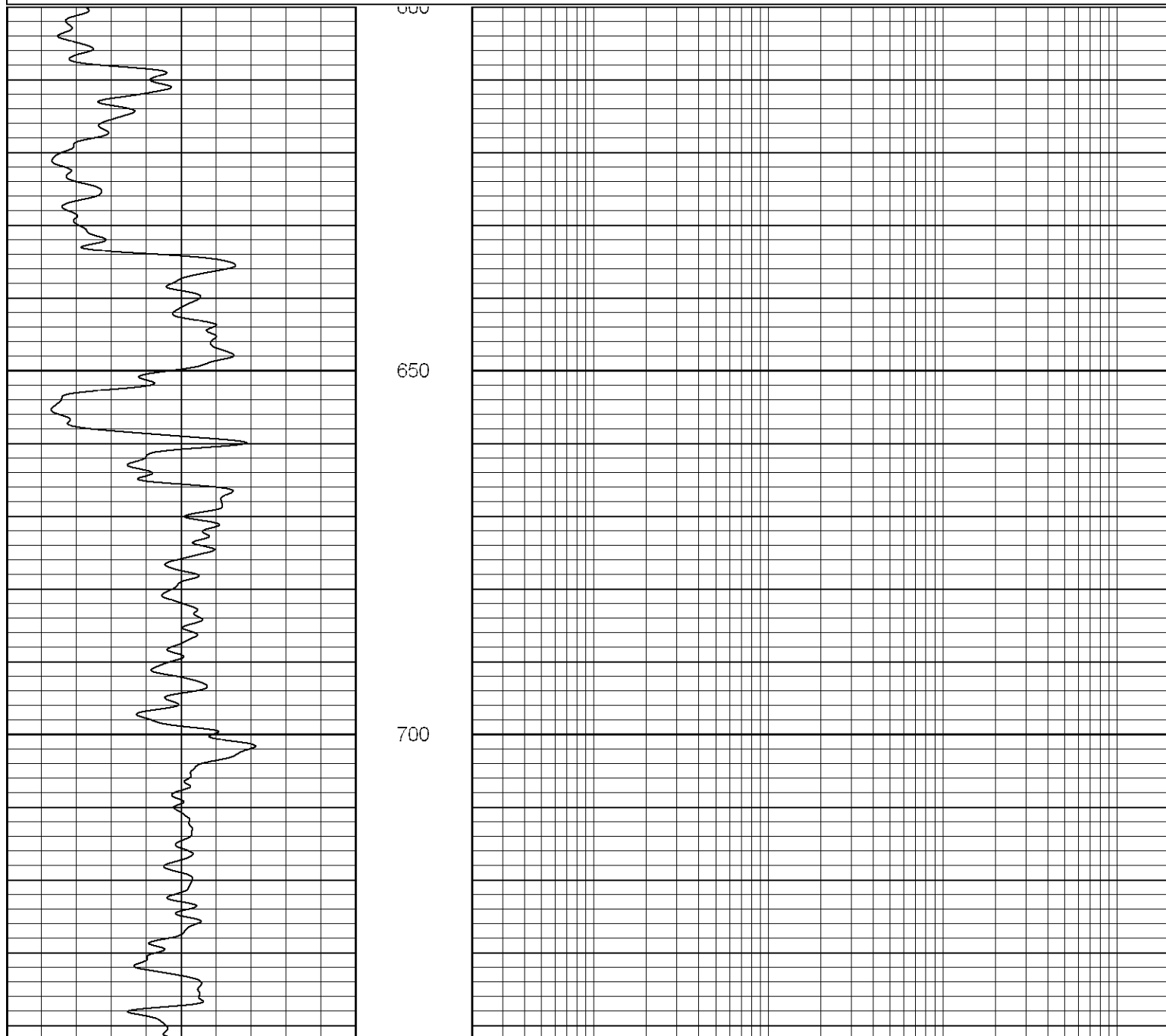


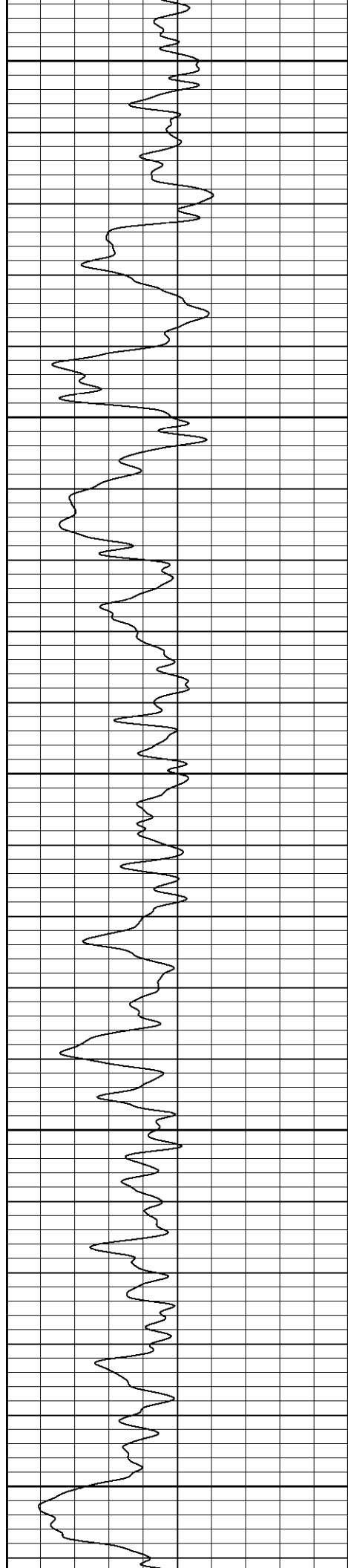
SUPERIOR

Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

Database File: pattic.db
Dataset Pathname: pass40GR
Presentation Format: iel
Dataset Creation: Mon Apr 23 09:05:50 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
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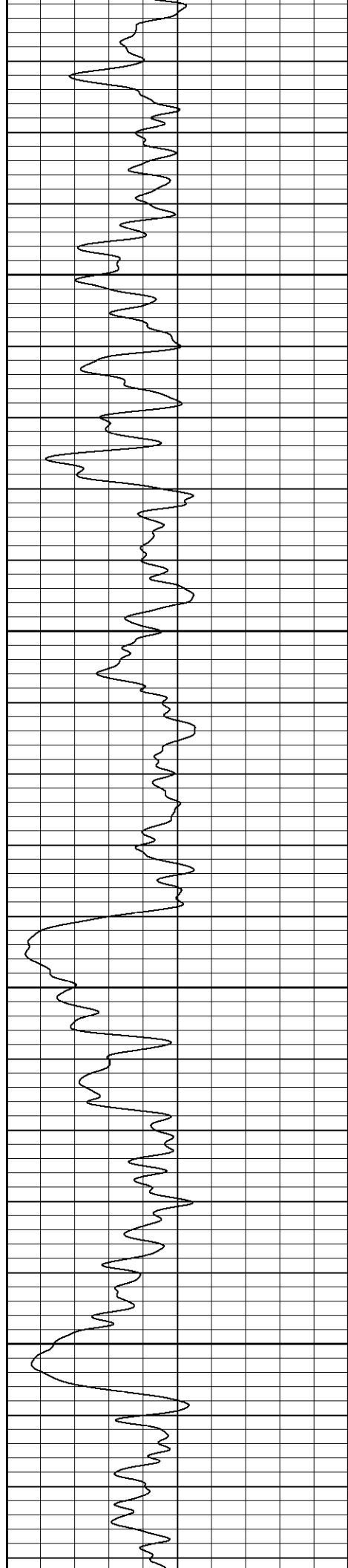
750

800

850

900

950

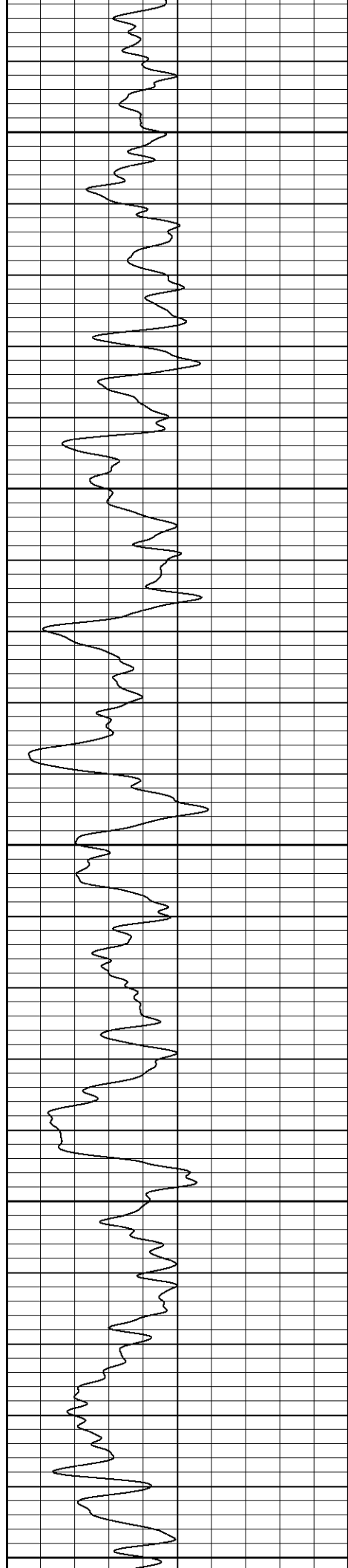


1000

1050

1100

1150



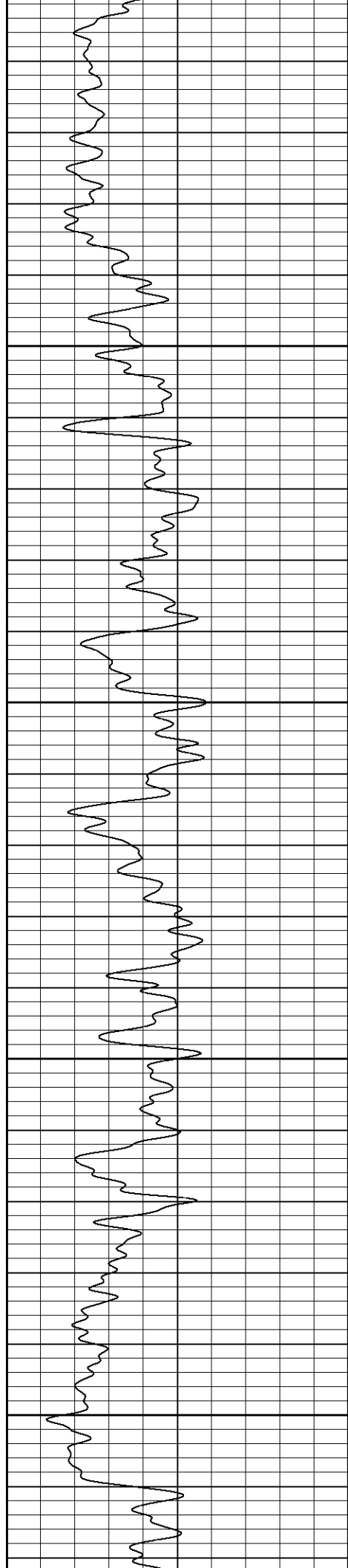
1200

1250

1300

1350

1400

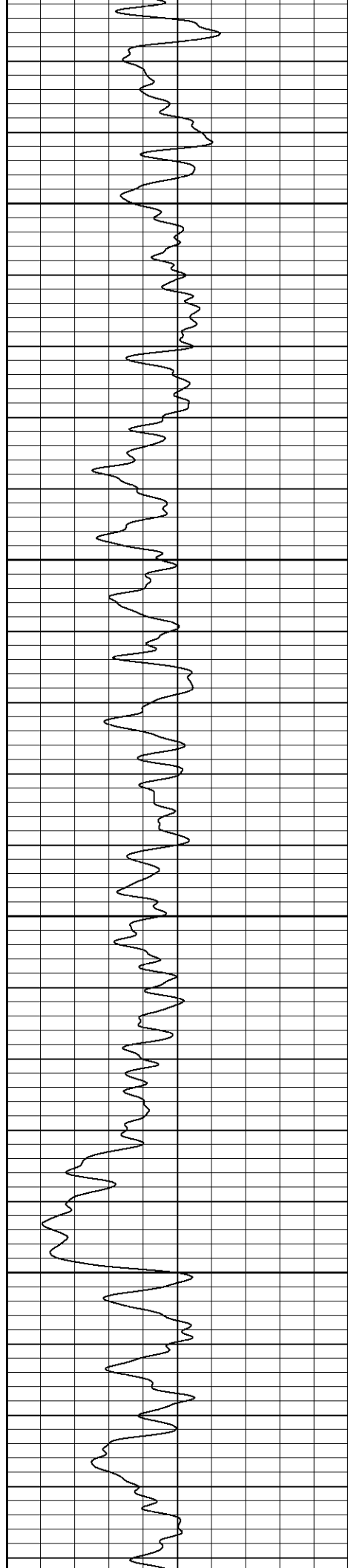


1450

1500

1550

1600

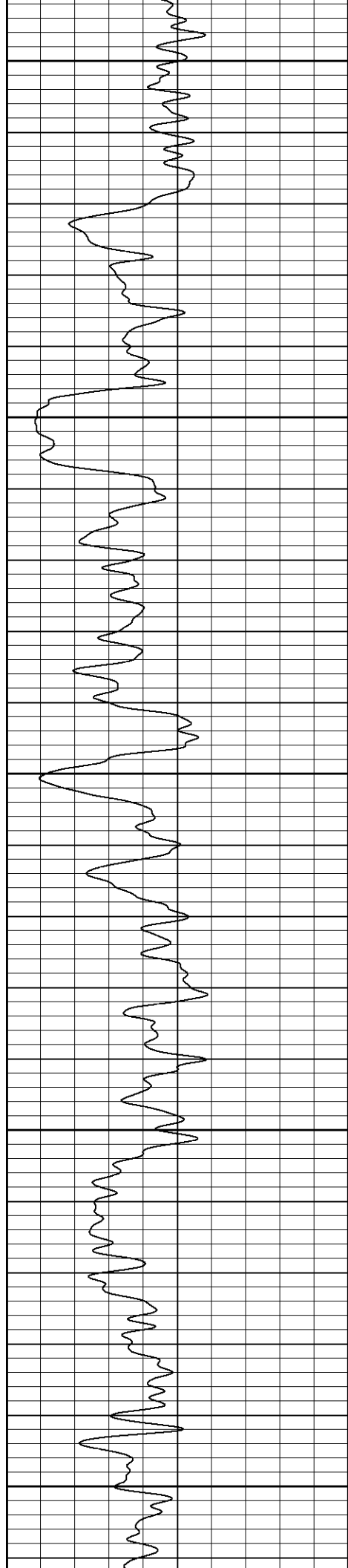


1650

1700

1750

1800



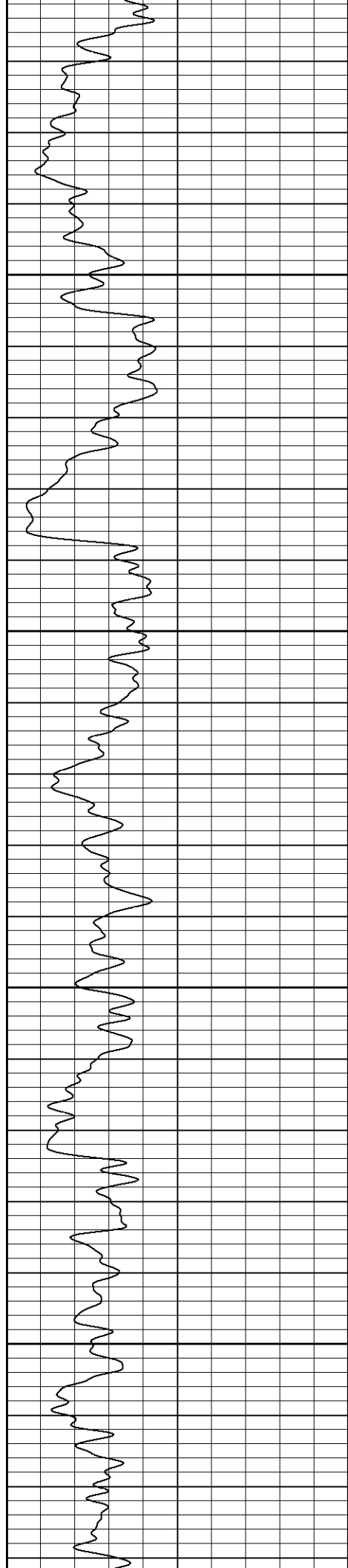
1850

1900

1950

2000

2050

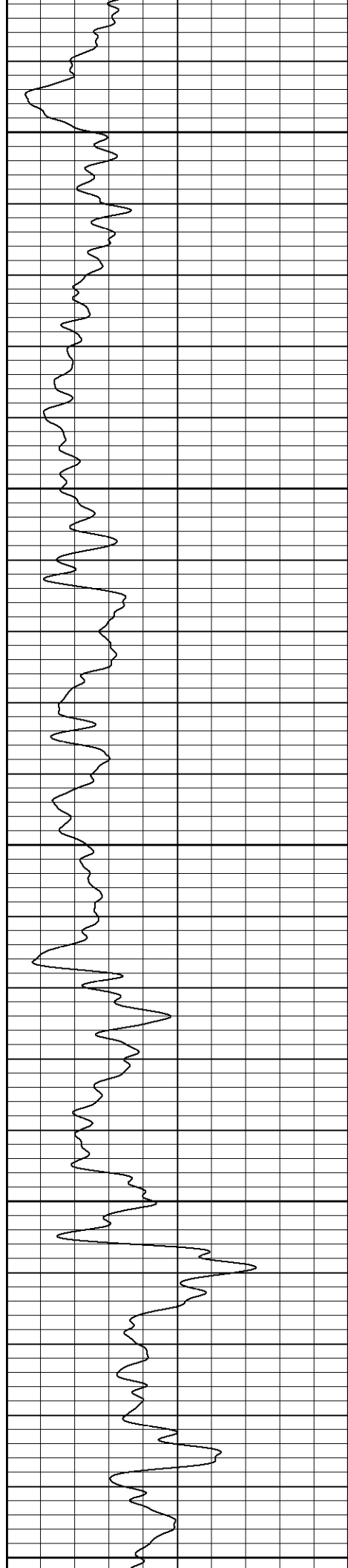


2100

2150

2200

2250



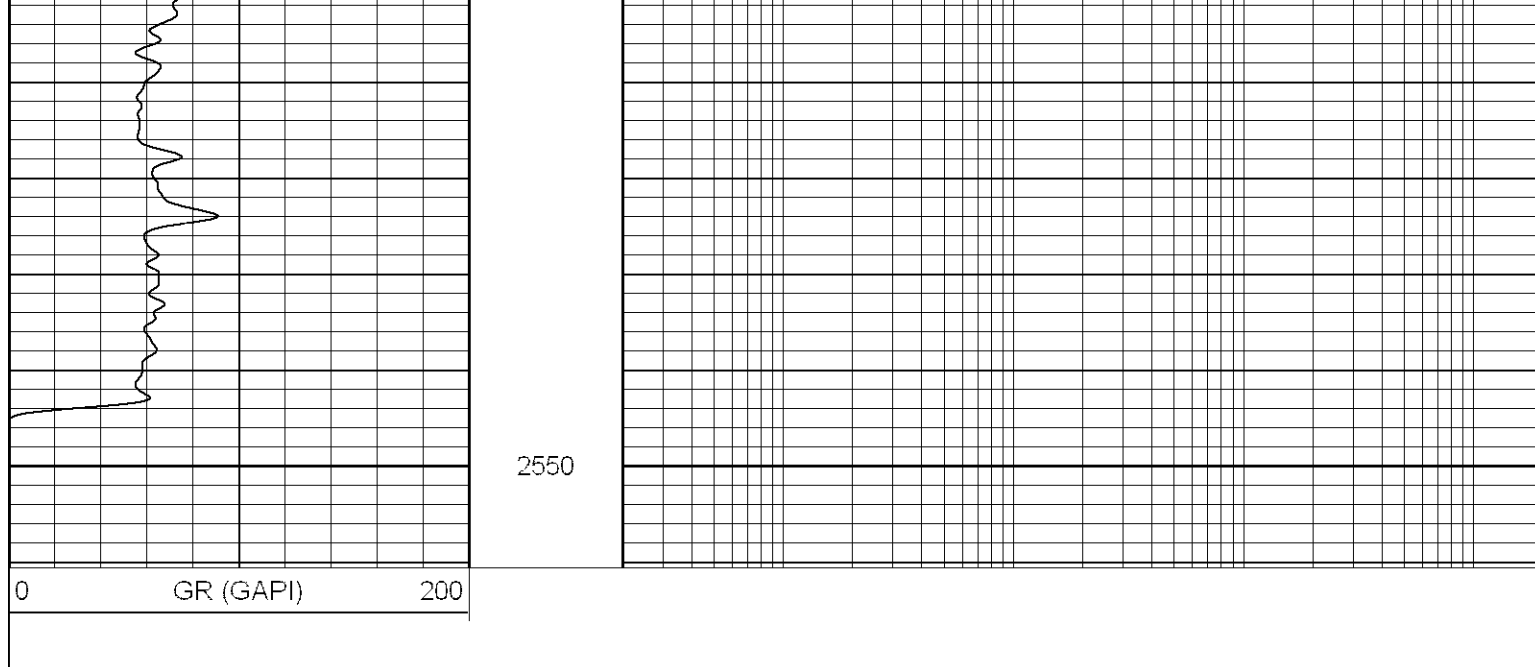
2300

2350

2400

2450

2500



Calibration Report

Database File: pattic.db
 Dataset Pathname: pass1
 Dataset Creation: Thu Apr 19 01:46:10 2007 by Log Open-Cased 061129

Induction Tool Calibration Report

Serial Number: 040903
 Tool Model: Probe
 Downhole Cal Performed: Sun Apr 01 16:29:28 2007
 Surface Cal Performed: Sun Apr 01 16:53:33 2007

Surface Calibration:	Air	Loop	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.009	0.649	V
Internal Reference:	Zero	Cal	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.013	0.649	V

Downhole Calibration:	Internal Zero	Internal Cal	
Conductivity Reference:	0.378	500.034	mmho
Conductivity Reading:	0.335	500.259	V
Short Normal Reference:	0.000	20.000	Ohm-m
Short Normal Reading:	0.006	0.234	V

Results:	Gain	Offset
Loop Conductivity:	781.229	-7.031
Downhole Correction:	0.999	0.043
Short Normal Resistivity:	63.000	-0.483

Compensated Density Calibration Report

Serial-Model: 901-2.75POH
 Source / Verifier: /
 Master Calibration Performed: Sun Apr 01 17:43:05 2007

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	966.13	494.39	cps
Aluminum	2.580	g/cc	173.30	243.84	cps

Spine Angle = 67.64

Density/Spine Ratio = 0.468

Spine Angle - 67.64

Density/Spine Ratio = 0.468

	Spine Angle = 67.64		Density/Spine Ratio = 0.468	
	Size		Reading	
Small Ring	7.85	in	1.92	V
Large Ring	17.00	in	4.15	V


Gamma Ray Calibration Report

Serial Number: 804
Tool Model: 2.75POH
Performed: Fri Feb 09 00:46:24 2007

Calibrator Value:	1.0	GAPI
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Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps

Sensitivity: 0.8100 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)	
GR	11.38		None	0.75	1.50	5.00	
			GR-2.75POH (804) Probe	3.73	2.75	43.00	
LSD	2.75		CDL-2.75POH (902) Probe	8.43	2.75	106.00	
DCAL	2.48						
SSD	2.23						

Dataset: pattic.db: field/well/run1/pass35
Total Length: 12.91 ft
Total Weight: 154.00 lb
O.D. 2.75 in